

aggatgcgaa cggaaaagag agggcggaata aaacggcaag ggtgaactgg acgagaggaa 180  
aacgagaggc taatggcaaa taatgtcatg catgagataa gagtttgtga tgggtacctg 240  
gtatgttgac ttttgtgtag actccccggc aacagcgcca gaaatccttc ttgctacctc 300  
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<223> Clone ID: LIB104-053-Q1-E1-B10

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ccgtcagtct gtggatctcg actccattgc tttccttttc gatggtcgta ggctccgtgg 180  
tgagcagacc cctgatgagc tggagatgga ggaaggcgac gagatcgacg ccatgcttca 240  
ccagaccgga ggggtgcttc ctgcacctta gaaggagctt gcttgacagcc tggctgttct 300  
atgtcgtatg ctacctttag aactagagta aaatgtaaga agtgaaagaa cttgtgaggc 360  
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<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-B11

<400> 8765

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gagaagaagg acaagaagaa gaagaaggac aagaagcacg gcgagggcca caaggacgac 180  
gacggccacg gcagcagcag cagcgacagc gacagcgact gagccagctc cggccgcgtg 240  
cagtgcaggg gagatgaacg cgtgggttaa cttggagcgt gtggtagcat atgtatgtaa 300

tgcttgacat gtctcatgga tcttgtaatg taataaccgg ctgcactgca 350

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<212> DNA  
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<223> Clone ID: LIB104-053-Q1-E1-B12

<400> 8766

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tgttgagatg ttgccatcac tttcatgctt tgaagttttg cgtgtcctag ctttggaagg 180  
cccctatgat tcacaccatc ctagtcatct tgagcatggt ggaaagttag ttcacttgag 240  
gcacctcaaa ctatcgagca tggatatcgg tgagctccca aaggaaatag gatattctaaa 300  
gttcttggtg gtattggact taggtagaaa tagcataagt gaacttccag agagtattgg 360  
ttgactaagt caactcaagt gcttgaacat atgcgaaaca ga 402

<210> 8767  
<211> 405  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-B2

<400> 8767

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ttctgcaaga tatcaagcat cagagaagag ctttcagggc agtagagttt atccatgaga 180  
gtagaagaca taatggagag gcgcatgctt tagctaaggc tgccgcatca ctccctcccg 240  
ggcgccatgt gtggctttct tctatgcccg atattatctg tattccaatg acagtttatg 300  
cttaagaaag gatacagatt atgctaaaaa aattgtcttc tttaacgcgt taaaaatata 360  
atctttaaac aagatgtcgc ttaacaaaat atcgcatttt ttgtc 405

<210> 8768  
<211> 363  
<212> DNA





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 atatgacata tatatggtgg atactccaaa agatggagat ggcatggaa cagtggggga 180  
 tgacgcccc aagaaacagc cgaagcgccg gcgtcagcgg cgccgctcta aatcccgcca 240  
 aagaaaaaaa cgggtgattct ggcacgggag ataatactac cccggatagc gccgaagaac 300  
 acccacctca gcaagattca gcacaggaag atggagaagc cagccctcat gagagagcgg 360  
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<210> 8771  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-053-Q1-E1-B9  
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 agttcgtgcc attcgtgct ccaagacaag ggcattggcg tcggcggtg cggcaacgaa 180  
 gctgatggtg cagagccaa ccatgaaggc agtagcacgg ggcagcgaca gcagcatgga 240  
 gggcgctctc ttgtttggga aggtaatgga actgcaaata ggagtggcag cggcgaccag 300  
 gatgcaaatg gaagtgggtc ccaaagacct tggaaagaaa tggcacgtga gcaaaggata 360  
 tcaagaagct tttgatgtt gggaagcttg gagctgatgc ttcanataag ctgatggttg 420  
 tcttttggct gtactggact attttaa 448

<210> 8772  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-053-Q1-E1-C10  
 <400> 8772

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 togctaacgg agctcacgag attttctgtt gagttttgtg ttgtgaagtt ttcaaatttt 180  
 gggtaaagat ttgatggatt atggaacaag gagtggcaag aacctaagct tggggatgcc 240  
 catggcaccc caagataatc taaggacact aaaaagccaa agcttgggga tgccccggaa 300  
 gacatcccct ctttcgtcct catccatcgg taactttact tggagctata tttttattca 360  
 ccacatgata tgtgttttgc ttggagcgtc ttgtatgatt tgagtccttc cttt 414

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 <211> 426  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-C3

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 tctatactaa gtatgcattg gtatcaaattg gaaagggtgt atctgtgcac tgaactgcag 180  
 aatgccagaa gagaggcgaa agcctagcct atagaagact aggatcctga agcagctcca 240  
 agcatcttgc aatatgtaga agagtgtgac accccaaaag tttggccttg tttttagtta 300  
 ttaaaatgtt gccaggaaat aaaacttttc caattgtcaa gttttaccct tttgtgattt 360  
 tggatttatg cctcttgtgg gaaaaaactt caaagtgtat ctttgacttg tgtgccctct 420  
 taaaaa 426

<210> 8774  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-053-Q1-E1-C4

<400> 8774

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 aactgccctc cgctccgcag gtctgagatt gagtactatg ctatgttggc gaagatcact 180

gtccaccact accatggaaa caatgttgat ttgggaactg cgtgtggtaa atacttccga 240  
 gtctgtgcc tgagtatcat cgaccctggc gattccgaca tcatcaacgc aacaccagct 300  
 ggccagtaaa cctgtgtatg ccattttcag tgtctcgtct gatgcgtcat ctaagggtggt 360  
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<210> 8775  
 <211> 181  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-C5

<400> 8775

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 tgtggtactg gagatactga ttactgaacc gatctcttggt ttggaaaggg aaagcgcgat 180  
 g 181

<210> 8776  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-053-Q1-E1-C7

<400> 8776

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 actgcgaccg tcagtctgtg gatctcaact ccattgcttt cctttttgat ggtcgtaggc 180  
 tccgtggtga gcagaccct gatgagcttg agatggagga aggcgacgag atcgacgcca 240  
 tgcttcacca gaccggaggg tgctttcctg gcccttagaa ggagcttgct gcagcctggc 300  
 tgttctatgt cgtatgctac ctttagaact agagtaaaat gtaagaagtg aaagaacttg 360  
 tgaggctatg gttctgtgcc atagcctgag ggggggtctg gangtgaaac aacatcgag 420  
 tactggtgat gtc 433

<210> 8777  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-053-Q1-E1-C9  
  
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 agagggtttc aaaaacttat accaaaggaa tggattgata tgttcaatga acatgaaatt 180  
 cagcttctca tatctggctc tttggaaagt ttggacattg atgacttgcg cttaaacc 240  
 aactattctg gaggttatca tccggaccat gagattatcg atatgttggt ggagggttcta 300  
 aagagcttca gttcagataa tcagaaaaag tttctcaagt ttgtgactgg atgttctcgc 360  
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<210> 8778  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-053-Q1-E1-D12  
  
 <400> 8778  
  
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 cgctagcagt caatgaggag cttgacctgc atgcaagact gattgatgac ctagacgacc 180  
 atgtggatgg tacgaactcg cgtctccagc gtgtgcaaaa gaggcttgcg gttctgaaca 240  
 agcgcgcaa gggcggctgc tcctgcatgt ccctgctgct gtccaccgct ggtatagtga 300  
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<210> 8779  
 <211> 395  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-D2

<400> 8779

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acgtgcacga cgttgcgcct tagcaatcgc taaaccaatc tcctgagggt actgacgatg 180  
ccggaagcac ggtcagcctg accacgaagg tctattctga tgaggacatg actaccttgg 240  
atatgaccaa aaatattgca tatatgcata tttgtcaggt gatttctagt gcaaactatt 300  
caataatcta tttatgttat ccagaacaaa aatacttcac acacttttgt gttttgtcta 360  
attgcaggtg tatgggacat ttgtacaatc cacat 395

<210> 8780

<211> 395

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-D4

<400> 8780

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caggggtgctg gtgccgacat ggagggcggc atggacgacg acacccagc tgcacccggc 180  
ggccctggcc ccaagatcga ggaggtcgac taaacagtca gttgttctgt tgcagaggcg 240  
gcgaagcctg ctgcttatta taccgtgtct gtgttatctg agacttgagg ttgtggtggt 300  
tattgttttg cttccgagtg gtcggagtta ttccgtgcga gttgcaacat tcgtggtagt 360  
ggatcaacgg ttatgatgtc tcacgtcaaa gtata 395

<210> 8781

<211> 426

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-D5

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 ggttgacctc tccgacgagg ccagaagaa gcggtgctgag gccatgatcg aggaccttga 240  
 gccgtttgag gggcaggcct tgctggacgc caagtgtctc aagtaagcga acagtgcctg 300  
 ggatcgtgat ggcggtggca aagaaactat ctaggacttg aaattcagtg tcgaaacagt 360  
 tggctcttttt tttggaagag tttgcttggt acttaatggc tatttgacct ggtgaactag 420  
 ttaatt 426

<210> 8782  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-D7

<400> 8782

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 ggttcagtgg cgccttgctc cgtgctctgg agcttcttca ccattagaag aactccaca 180  
 gggcgtagat tgtttacaag ataattagtc aagtgtttta ctactgcagt aaaataaagg 240  
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 aaggctaata tagggactaa actctctcac tcaactaagg attagcaatt ccataagata 360  
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<210> 8783  
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 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-D9

<400> 8783

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 tgctataacg gacagcgctc cctgttggcg ccgcccggcg cgggggtggt gccctggcgg 180

cggaggggtgt atgtcctctg ccgccgggtg ctccctgtct tgtacctaga tggttgggta 240  
 ctctttccgt ccattgtcac cggctaacat tgtgataata tcagtctggg taatgttaga 300  
 ttaagctgtt gtttgtgtcc caaaaaaaaa aggccgtcca tttaaaaaat tctaacagga 360  
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 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-E1

<400> 8784

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<210> 8785  
 <211> 395  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-E10

<400> 8785

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 gaccgtcagt ctgtggatct caactccatt gctttccttt tcgatgggtcg taggctccgt 180  
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<210> 8786  
 <211> 338  
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<213>       Triticum aestivum

<223>       Clone ID: LIB104-053-Q1-E1-E11

<400>       8786

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aaagtcaacc accaaggcaa ggttccccga atttaaaacc ttctttcccc cccccgtaat   180
tccactttga aattgtccat ccccaaatt tccccaaag gttcccccaa acttttttcc   240
ccgtaaaactc acacacccaa tgtgtgttaa atatcccctt tttccccgtg ttgccccgga   300
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<210>       8787

<211>       343

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-053-Q1-E1-E2

<400>       8787

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tccgggctgc ccgggtgacc agtgtcgtgg agatggtggc tgccatgcag taagtcatgc   240
atcatgtcat aactagtga tgcacattgc atgtcttgaa taagacggaa gagtgtcttg   300
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<210>       8788

<211>       381

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-053-Q1-E1-E4

<400>       8788

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gatccacaag gcggtgctga gagcctgaag tgaaccattt tgaattgaat gtggccttgt 180  
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 aaaactattc tctctgctca ggtgggcatc gcctgtttgc tttgggaact cgtgtgcgaa 300  
 ccggtctcga aatactgtaa ccacagggaa tgacgaatgc tatttgctgt atttttctga 360  
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<210> 8789  
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<223> Clone ID: LIB104-053-Q1-E1-F1

<400> 8789

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 aggctgcagg gccgcagacg ccgttcatcg agtagccgca cgggtcgaag tcgaagtcgc 180  
 agatctccat ctcggggatg atagcagaga tccccgagac cttggtcac tcttgggccg 240  
 aggagcagcc gccgtcggca gagttcttga agaacaccgc ggccttcccg gcgtccagcc 300  
 cagtcatgca catctcgagc gtcaccatgg gttgctcagg ctctcagtg gcgtagtaga 360  
 cgtgccacat cttcttgggc ctgaacgcat caccatcac atatgca 407

<210> 8790  
 <211> 379  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-F10

<400> 8790

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 tcctgtggtc gcatgtgtcg gcgtgtctat acgatgcac cttacatacc cttgatcac 240  
 acttgatagc gcatctatag tgtgtatcaa ttgatatcat gagtgcctgt tctacaatgt 300

ccagagtga aaaaggctga cataacacaa gatggtcacc ttgaaggaca tcacccttta 360  
gacaactcgc gggttacct 379

<210> 8791  
<211> 439  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-053-Q1-E1-F6  
  
<400> 8791

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actcttcgct tcagaagttg ttcggtgatc cgaagaccac ttccagtgtg attgagcctg 240  
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tcgagggatc gataccatt tttcacactg tatgctgata aagcaggttc aggctgctgc 360  
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<211> 427  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-053-Q1-E1-F8  
  
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ttttaagata tttggttgtc ttgtaatcgg atatattatg cgctcgataa catctgggat 180  
gaactaaact gagcctaaat aactggttgc tgtcaatttg cttggtatcg tcttatagtg 240  
tggcaactga tgttggggga taatcacctc aactgaacgc tgccctttat aacaatgaat 300  
agtctgggtt tgctgatgca cttttgttat tgcattgccc cactgaacag gcattgcaat 360  
gatgtgatat tatgatatgc ttgacacaaa acaaatcaat tcaaataaaa aaaaaagcg 420

gccgctc

427

<210> 8793

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-G1

<400> 8793

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aagcgtcagg taaggtttct ctgctctgtc ttttacttat tgttttctat ttttttctgc 120  
agctttgtgg ctttattaaa aatactaaat caatcccaaa aatcatgcaa ctgctcatga 180  
ccactgtag aaatatattc tacagtaaac atttcagttt gggattattt gagcatttag 240  
aatattttat agtattttaa tgcccaaag caaataagta atgattttaa ttcaaagtcc 300  
caaaaataaa tcctttttaa atgttcatta ttttttgttt ggatgaaaac ccttgccaaa 360  
aatattaaac atctaaggag agcatttttg agcaatgaat gagaattaag gttttt 416

<210> 8794

<211> 393

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-G10

<400> 8794

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atcgtgcatg gcatgctacg tcgttgctgc tggacgtgta gtttagagaa agaaccatt 120  
tcatatatag aatagatagt gaaacaaact agtaggaaaa aaagaaatgg caaagaagca 180  
taccagtcta acaccagcgt caggtatttc acctgggacg agcctatatt catacatgac 240  
ccagtcggtc cttgtaccct tggg'gcctt gccagcgtga aacaccaggg tcctcttcat 300  
cccaacagtg cgattttcat acaccacctg cctgtccttt ccagtagcct tccagtagcc 360  
accttcggtt gaacggtag ctctatgccc aac 393

<210> 8795

<211> 413

<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-053-Q1-E1-G11

<400>       8795

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gctagtcaag tagaggcata cttgtgacac tttgtttgtc tatgtattca cttttgtact  120
aagtttccgg ttaatacact tctagcatga ataataaaca taggccgcct ccacctctct  180
cccactaagg cccaataagg ccatacact ccccgggggg ttccggtaac ctcccggtac  240
tccggtaaat gcccgaaccc acccgggacc attccgatgt ccaaacatag ccatccaata  300
tatcgatctt tatgtctcga ccatttcgag actcctcgcc atgtccgtga tcacatccgg  360
gactctgaac aaccttcggg acatcaaaac acataaactc ataataccga ttg         413
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<210>       8796

<211>       232

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-053-Q1-E1-G12

<400>       8796

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cttcggtgat ggttcgcttc attatccgga gccattacg acagtcatga ctttcatgca   60
ggggtagcgt acctgcatgc gtgcgcaagt tggtaggct atgcatggcg tcagttacct  120
ggctaagttg ttacgctacg tgcatgcac gcattggacat ggggtgcatgt ggttgagata  180
ttctaggcgg tgactgtccg tgtgtgtgca tggatatagt ttgctagact cc         232
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<210>       8797

<211>       422

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-053-Q1-E1-G4

<400>       8797

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actgagcatt tgctcatgga tctgtgtttg caacagttct ttgtgtcaaa gaaacagaat  120
ggggcgtatt taagaagttc ttcaaagtgt gttgggaatt ttacctcatc aattacactt  180
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tggcggttctg gggagccgaa ttttggtggt gtttcacgtg atttgatagc gagtgtctgt 240  
 ctatcttctt tctttagtgc cagtgaaccc aatgcgccac caggatttgt tggcatgaaa 300  
 gcaatcaatg ctactagtgc tgtgcgtact gcaacacgaa tagtttggct cagatgtgta 360  
 tacatcatat gaacaagaaa aaggaaaagg aaaagaagac acatataatt aatataacac 420  
 ac 422

<210> 8798  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-053-Q1-E1-G6  
 <400> 8798

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 caaggagcac aaggcctgca catccaagca agtggttaaca tggacttgta catggaacat 180  
 cccaagcgca atcaaagctg cagtgagcct gtacaacgag ctagcgtaag tccttgcatt 240  
 tcatttaatt cgtactggca ttcgtgtatg atttgtgtgc actggctgat ccacgaattt 300  
 aagttaccag gggcgaacat ttaacttaaa aaatacgaag gcacttgcac tctggaaatc 360  
 aacataactt gagaaatgtg aagctacatg caccttgaga actagctaata gatccaaagt 420  
 aattcggatt 430

<210> 8799  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-053-Q1-E1-G8  
 <400> 8799

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 ggccaagaag agcgtggaga cgtacaagat ctacatcttc aaggtgctga agcaggtgca 180  
 cccggacatc ggcattctct ccaaggccat gtccatcatg aactccttca tcaacgacat 240

cttcgagaag ctcgccgggg agtcggccaa gctcgcccg tacaacaaga agccgaccat 300  
 tacctcccg gagatccaga cctccgtccg cctcgtcctc cccggcgagc tcgccaagca 360  
 cgccgtctcc gagggcacca aggccgtcac caagtttacc tcctcttaga tcgcgtcgcc 420  
 tgtatctag 429

<210> 8800  
 <211> 356  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-053-Q1-E1-H10  
 <400> 8800

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 acttatgtca ccacanacag aaactaaagc aggtgttgga tttaaagctg gtgttaaaga 120  
 ttataaattg acttactaca cccagagta tgaaactaag gatactgata tcttggcagc 180  
 attccgagta agtcctcagc ctgggggttc gccgaagaa gcaggggctg cagtagctgc 240  
 cgaatcttct actggtacat ggacaactgt ttggactgat ggacttacca gtcttgatcg 300  
 ttacaaagga cgatgctatc acatcgagcc tgttgctggg gaaaaacacc aatgga 356

<210> 8801  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-053-Q1-E1-H12  
 <400> 8801

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 aacaagctgt ggatcaggat gcttctgctg ccaaggtgga tcaaatagac atggagtcaa 180  
 atgacatccg ccgcttcgaa cagttgagac gtgagttgat tgagttagaa aggagagtgc 240  
 agaagagtac agatggtgct aaaaaagagg agttccagga aacggagggt ccagatgaaa 300  
 caatgagccc ttctgagtca gcacccctc tgtcagggcc tcctgggttca gtaatcaaga 360  
 aagaaaatgt tattacaaaa t 381

<210> 8802  
 <211> 326  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-H2

<400> 8802

tacgtttcac agggttcatg ccgagaagcg gctgccgtcg ggcaagacag cggccaagga 60  
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 gtacaagatc tacatcttca aggtgctgaa gcaggtgcac ccggacatcg gcctctcttc 180  
 caaggccatg tccatcatga actccttcat caacgacatc ttcgagaagc tcaccgggga 240  
 gtcagccaag ctgccccgt acaacaagaa gccgataatt acctcgcgcg agattcagac 300  
 ctccgtccgc ctgctctcc gcggcg 326

<210> 8803  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-H3

<400> 8803

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 acccatacac tgggtctttg gactgcgcca tgcaaactt gaagaccggt ggccattta 180  
 agttctactc cggcttcctt gtatattgtg tcaggatcgc cccgcatgtc atgatgacgt 240  
 ggctcttctt gaatcaaac cagaagtacc agaagaagat cggcatataa gatctccagt 300  
 tggagacaag agtaccaatc cttgttcgac acatttaata actttccagc agctttgcac 360  
 tcccgtgggt gtttttggtta cacagagttt taagcaattt ttaccgtagc 410

<210> 8804  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-H4



<400> 8804

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ataaaatacc aagatctgaa attcttaaatt gtttagagagt cttcatatag ttgcataatt 120  
attcgactac tcattgatct tcacttatat ctttcggagt agtttggttg tgctctagt 180  
cttcacttac atcttttttag agcacggcgg tggttttatc ttacagaaat agatgaacta 240  
tcatgtgtca cttatattat tttgagagtc ctaaacagca tggtaatttg ctttggttat 300  
gaatttagtc ctaatatgat gggcatccaa gagggatata ataaaaactt tcatataaag 360  
tgcattgaat actatgagaa gtttgatact tgataattgt tttgagatat 410

<210> 8805

<211> 399

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-H6

<400> 8805

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ctcccccatg tgtccagcag ctgaggtttc accctctggc gccgccctga cggcctcctg 120  
catctctccc tggcctggga tccttcggga caacacctcg gtgtcatcca tggccctggg 180  
agaggaggcc gccggaaggg acccgctgtc catcaccttc ggggccagcg aattccccga 240  
agatgaggat cgctcaaagt cggaacgagc cggactacaa gtgcatgatt caacatgtta 300  
aaactatgaa gtaaaaaggc tggatatatg aatgcgtcag ggtctttgag tactcatgat 360  
tcggccaggg gcttatctcg ggggcgccgc tctgggctg 399

<210> 8806

<211> 284

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-H8

<400> 8806

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gaagaccaag gccagggaaa ggcttatcgc aaaggaggct gccgagcgga tgaactaagt 120

ttagcattgt tgaaccatat ctattcctca tccttgagta gtgtgcaagc atactgtggc 180  
 agtttggctc cagttttgaa agtcattttt gtttgtctga aacatcttgg aaagaacagt 240  
 gtaagaatga agtattttctg tttaatgcc a gttagtattt ttgt 284

<210> 8807  
 <211> 189  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-053-Q1-E1-H9  
 <400> 8807

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 gcctcaacgg cggcctgcgc cacacacttc tgtcatgacg agacacgctc atctcatgcc 180  
 aacgatatt 189

<210> 8808  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-054-Q1-E1-A11  
 <400> 8808

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 taaaaatcca atggacaatg gaacaaggat tggcaaaagc caaaccttgg ggatgccc at 180  
 ggcgcccaa aatgatcaaa ggacaccaa aacacaattc ttggggagcc cccggaaggc 240  
 atccccctctt tcgtcctcat caaccggtaa ctttacttgg agctaaattt taatttacca 300  
 caagatatgt gttttgcttg gagcgtcact tcattttctt ttgctttgct tgagggttga 360  
 ataaaatatt aagatctgaa attatcaa at 390

<210> 8809  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-A12

<400> 8809

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tggtgttggt tgaggctggg ttgagcagag gaaaagttgt tccttttttg atgatcatgg 180  
tgatactgct gtcattgttc ttctttagt gagtagtata cacatggacc tgataaaatg 240  
gtccttgata tgatggaatt agtagcattt gtgtgggttt aactgttgt gcctaaacta 300  
ctatggttgc caagccagca tccattgcat caatcctcat gaattagtgg acaatgtata 360  
gataaactct atggaacaat aatgatagt aatcagcaca atagttta 408

<210> 8810

<211> 414

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-054-Q1-E1-A3

<400> 8810

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aaaaatggta aattcaacaa agggcctgga attttggat tttgggttca acttgcaagt 120  
aaccaaggta ctatcagtag ggattgcaga ctgcggggag gctatatata aattttcatt 180  
cgctctgctt ttgaaattac tcctcgatgt tatgtgcaa ctgccaaccg tacgcctgaa 240  
cgatgtttga ggcctctatt agaaaactgg aagttgtaac tttgtgactg gacaagtttg 300  
tcgtaattag gatacaaagt tctttgttat gcaattctac cgttttttgt tgcaaaaaaa 360  
aaaaaanaac taaaataaaa aataaaaaaa aaccaaaata tccaacacaa aaat 414

<210> 8811

<211> 243

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-A4

<400> 8811

ccacatccca actgcaggcc ttcgtacact attaatcttc aaccagaggt tatctcgtag 60  
gatcaatgga aagatcctaa ggcagatacg acacgtggac tttcgacatg gatgaaaggt 120  
gcatttcatg gaaacaaaag cgacatccaa gattcattac tccaaaatct gtattcaatt 180  
ctcagcacgt cgcctaagtg cgacatgctg caactcacag gggacaaaaa tgtccttggt 240  
gaa 243

<210> 8812  
<211> 477  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-A5

<400> 8812

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cacttttacc tttccatcat tgctagcctc ttcggtagcg tgcattgccc tttctcacct 180  
cgagagttgg tgcaaaacttc gccagtgcac ccaaaccg cgatagcaca tgctctatca 240  
cacataagcc tcattatata ttcctcaaaa cagccaccat acctacctat catggcattt 300  
ccatagccat tccgagatat attgccatgc aacttccatc atcataatat tcatgacttg 360  
agcattcatt gtcataattgc tttgcatgat tgtaagatag ctagcatgat gttttcatgg 420  
cttgtccatt ttttgatgac attgctacgc tagatcattg cacatcccgg tacaccg 477

<210> 8813  
<211> 481  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-054-Q1-E1-A7

<400> 8813

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gaaggactat gatcctggag gttttgtggc ataatggagc acaaactaac atagtgtgctt 180  
ttagctcac attatgtgtc cagaatcaag atttgatga tgcactcaca tggagtaacc 240

acttgaggta aaacttggca aggcttagtg acttggccag ataaaggtgc tataaaaatt 300  
tcataccaat tggttttacc aaaatggtac ttccttcaca actatcttca ctggccagaa 360  
tcttgcaaga attctagagg agtattggct aggttaaatt gtgcaaatt tgggtggagag 420  
aagttatfff gtaggagaat actctagtaa attgtcaggc aaaatgaanc aatataaaat 480  
a 481

<210> 8814  
<211> 368  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-A8

<400> 8814

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ggtggacttt cgacatggat taaaggtgca tttcatggaa acaaaagcga catccaagat 180  
tcattactcc aaaatctgta ttctattctc agcacgtcgc ctatgtggga caggctgcaa 240  
ctcagagggg acaaaaatgt ccttggtgaa ttcatggaat ttaaaagcaa gaatgaagac 300  
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actccttt 368

<210> 8815  
<211> 481  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-054-Q1-E1-A9

<400> 8815

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caccttggtg ggttgtgctc ccctcggagg accccgcgac gcgtcatcgt gaccatttg 180  
gtgtcttctg ctccaaacaa atcgcggtac agtttcgttg tacttgagcg ctgttttgta 240

gtgatttcct gcgatgtaaa aaacatgcag aaagcagcaa ctggcacttg gcactatgcc 300  
aatagggttag taccaaataa tgatacaaaa tgattataaa acatgcaaga ttgataatat 360  
aacagcatgg aacaatcaaa aattatagaa aagttggaga cgtatcagca tccccaaagct 420  
taactcctac tcgtcctcga gtaggtaagt gataaaaaca gaacttttga tgtggaatga 480  
t 481

<210> 8816  
<211> 481  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-B1

<400> 8816

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cggtggcctc gccatcgtat cccctccga cgttggtcat gggatgcagt cagcgggtcca 180  
gctgcaggag gaacaggatg gccacatggt acacaaatgc atttatgtat gtgacaccta 240  
cccaaaaacc aggttggccc accttcggcc ccagacggc ccaggggaat tgacgtctag 300  
ttgtcgtca ggctggtcac aatggacaag aacataagct agtaacttac acactttcct 360  
agactatatt actacctcca tagtgggtag gaacatctat gtagtgtcat gcaaagatgt 420  
atttattagg ttatagactc attgtttctt ggagtgtgtg atgttccggt aacttagcta 480  
g 481

<210> 8817  
<211> 260  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-B10

<400> 8817

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tagacattgt tgcgtgtatt attatactta atacatgggt cactagttat attagggtgg 120  
ttctgcta atgtattcttc tcgaactcgt gatcagtttt gactgataaa aatgtccagt 180

ggcttcgagg attcatcata ttattttatc atatgatatg ttttttttcc tattttttaca 240  
 ttcgacagac tttgataatg 260

<210> 8818  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-054-Q1-E1-B11  
 <400> 8818

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 aaccgcatga cgaactaccc cttcgcggaa aacttgcaac ctccggcgcc gatattcgcc 120  
 gacaaggccg ccgcgctcgc gtccctcttc gcgcgcctc ctccaccgcc tctcccgggtg 180  
 ttcagcttct cggcggagcc caagatggag gaggcgatcg ggtcactgct gctcccgggg 240  
 caggaggcgt cgcaggagcc agaggagccc acctgcacct ccaccgtcgc ggacatggcg 300  
 ccgttcattgt cgctggacgc ggggatctcc gagctcggcg acgcgtcgcc ggccgattac 360  
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 ggcttagttc ctcatcacga ttgcctta 448

<210> 8819  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-054-Q1-E1-B3  
 <400> 8819

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 gagctttcaa gtactccctt catcctaaat tacttatcgc agaattggata taattttttt 120  
 ccgaaaatat aagaaatgaa tgtatataaa actaaaagta cataaaaaaac gccacaaccc 180  
 tgaggagcaa cgaatctact tttatcaagg attactactg actaactgct tcgtttttgta 240  
 taatatcgtc atgtttacca ggaaagaagg gacgaaattt gcctgctccc ctgcgctgtg 300  
 cccatccgtg cccccgcgta cgtgggtttaa tttgattgaa acaaaataag gcccgccccc 360  
 acctcattaa aatcaggggg ggagataatt agattagaaa aaaaaaanaa aaactaaaaa 420

aaaaaaaaagc ggccgc

436

<210> 8820  
<211> 435  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-054-Q1-E1-B6  
  
<400> 8820

cggtcaggcc attccgggtc gaccggaatg gagcaaagat tggagctgta caatcgagtt 60  
cctcccaatg gattggtgct ttatactgga gttttactat ccatagaacg catggagttg 120  
gccggcagcg gcagagtatg ggagcagtgg tggcggcgtg gcatatcagc tctcctagag 180  
tgagctagtt gcagtagagg ctaaggaaat gcagtagtga acaccaaaga aatagatacg 240  
aaacgtccgc ccgcccgcgc caccgccgaa tctggcagca agcgdaccgc tgcggccgag 300  
ttgcacaacc tctccgagaa ggcggtgtcn cgcttcnccg tcgttaacca cttttccctg 360  
agtttcgccc cgcttttcta ctgtttcttt ctgcacctat tttcccggtc gctcattgct 420  
tgcttgcttg attgg 435

<210> 8821  
<211> 456  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-054-Q1-E1-B7  
  
<400> 8821

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accagggcaa ccgccaggtg accttctcca agcgcaagaa cgggatcctc aagaaggcca 120  
aggagatcag cgtgctctgc gacgccgagg tcggcgctcgt cgtcttctcc agcgccggca 180  
agctctacga cttctgctcc ccaggacct cgctatcaag aatcttgag aagtaccaga 240  
ccaactccgg gaagatactg tgggatgaga aacacaagag cctcagtgcg gagattgatc 300  
gaatcaagaa agagaatgat aacatgcaga tcgagctcag acacttgaaa ggcgaagata 360  
tgaactcgct gcagcccaaa gagctgatca tgattgagga agcacttgat aatgggctga 420



caagtctgca tgaaaaacag atggagcact atgaca

456

<210> 8822

<211> 237

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-B8

<400> 8822

acggtcaggc tagtccgggt cgacgcggca cgcgcggagg cattcatata gagtcatacc 60

ttgggtctaac tatcaattgg aaatcctgga ttggtaatct atataaattg taagattcac 120

cataataaaa caatggccca atgtggagaa gagattatgg acaataagac ttccacacat 180

ctcgagatgg catccgactt tataaaaata aaagaggcca aagatgctca gcagctc 237

<210> 8823

<211> 482

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-C1

<400> 8823

tcggaaatca agggtcgacc ggatcgcggt tgctgtgagc aaactgagcc ggtttgtttc 60

caaaccgggt gatgtacatt ggcatgctgt tgagagaaag gtactatgaa ctatggactt 120

cactataccg gatacccgtc ggtacttgaa gggatatagt atgcgaattg gatctctgat 180

gctgatgaga tgaaggccac aactgggtat atgtttactc ttggagggtg cgctgtttcc 240

tggaagtctt gcaagcaagc gatcttaacg agatcgacaa tggaagcaga attaacggca 300

ttagacacat ctggtggtga agcgagatgg ctctgagatc ttttgatgga cttgccattg 360

gttgataaac cggttccggc tatccttatg aactgtgaca atcagactgt catcaccaag 420

gtgaagagtt caaaggacaa catgaaatcc accaaacaca taagaatgag attaaaagct 480

gt 482

<210> 8824

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-C11

<400> 8824

acagacagaa atacaccgga caggggtgacg acttgatcta ccaactccaag gggcatgtct 60  
tgaacccagg gcaaagggac tggacaaggt accagccttg ggaacaaaag aaagaagagg 120  
ccacctgata tgtatgaatg gtacctgata atcctcttct atgtttcgca tttggtttgg 180  
tgtcgcggtat ctaaaaccgc cagtcacctt ggtttcatgg actggacctg aataatgtac 240  
tctatctgat actgaatacc tgccactgaa caattttaat ctctgtggat gtggcaattg 300  
agaaactggc gattcgggtcg tcggtgtttg cattgaagag tttctttttt ctactgatgt 360  
caatggtgcg tggatgttga gatgctgaaa ggagataata ttgttttgta aattccgtgg 420  
tgttgcaaca tgcccgtgtt cttt 444

<210> 8825

<211> 349

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-C12

<400> 8825

ggcgggtgggg tcaatcccgg aggcgcagct gaactaccgg gcgatactgg tgcaactctc 60  
caagaagccg ttcaaggcaa accggacggt gacaaacgta gggccggcaa attcaatgta 120  
cactgctcac ctggacgtgc ccaattggct caaggtgaag gtgcagccaa aggcgctgga 180  
gttcacgtcg gcgatggaga agaagacatt cacggtgacc gtgagcagca agggaggtga 240  
cgccgacgcc aacgccgggc agctggccga ggggagccta cgctgggtgt ctgaagatca 300  
cgtggtgceg agcccgatca tcgccgacgc cagcgtttgt cccacatga 349

<210> 8826

<211> 414

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-054-Q1-E1-C3

<400> 8826

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aaaaccggcg gatctcaagt acgggggtcnc gaactgtgcg tctaagccag atggtaacag 120  
 gaggcaaggg acatgaagtt ttacccaggt tcgggccctc tcgatggagg taaaacccta 180  
 cgtcctgctt gattaatatt gatgatatgg gtagtacaag agtagatcta ccatgagatc 240  
 gangangcta aaccctagaa gctagcctat ggtatgattg ttgatgtgta tgttgctcta 300  
 cggactaaaa ccctccggtt tatatagaca ccggataggg ttagggttac atagagttgg 360  
 ttacaatggt aggagatctt catatccgta tcgccaaagt tgccttccac gcc 414

<210> 8827

<211> 470

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-C7

<400> 8827

tacggtcagg tactccgggt cgacgcggag tccttggttg atttatagaa ttctcattgc 60  
 acttcaacta aatcttttga gtgtggcttt atagaatgct tcatgtgctt cacttatatc 120  
 atttgaagtt ggattgcttg tttctcttta catagaaacc tgccatttgt agaatgctct 180  
 tttgcttcac ttatatattgt taaagtgtgg gcatatcttt tgtagaaata attgaactct 240  
 cttgcttcac ttatatcttt ttagagagat gacaggaatt ggtcattcac atggttagtc 300  
 ataaaatcct acataaactt gtaaactcgt gaatatgata tgtttgattc cttgcaatag 360  
 ttttgcgata taaaggaggt gatattagag tcatgctagt gggcggttgt ggattgtaga 420  
 gacacttggt ttgaggtttg caagtcccgt agcatgcacg tatggtaacc 470

<210> 8828

<211> 369

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-054-Q1-E1-C8

<400> 8828

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 ttggtcggta catctcaaag gcagggttaa tgggtgccgtc aaaacctgtg gtgagatttt 120

caatatgttt gatacgtatc tcaacttctc aaaccctctt atcgccaaga aatttgaccg 180  
acgtgcatgt ggggtgggcat atggcatgaa catgtttgat ttgtctgagt ggagaacgca 240  
gaatattact gctgtgtatc actactggca agaacagaat gaacatagac tgttatggaa 300  
gttangaaca ctccctgctg gcttggcgac attctggaac ancacttccc tctcgatcgc 360  
tcatggcat 369

<210> 8829  
<211> 449  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-D10

<400> 8829

tcggaatcc aaggtcgacc ggctgggtat ttgcagatat ttgaactatt tagtcgccat 60  
aatattctct tgggctcgcc tggaacctgc gtagaccaag tacaattttg gtcttaagtt 120  
gtagaagtga agatgttaaa tattttctaa tgttcttacc aaaggaatgt gtaaataaat 180  
catatatata tatatagctt gttcgcacga tagagcggac gacttaggtg catagttgaa 240  
aatgtgcgta aaattctata caagcataca catcttttac ggtttggtat cgtgttaaata 300  
catagcattc ctttttatga tgattgtgca tgtaccttgg gtatgtattc tgcaaccttg 360  
acaaccggcc tccactcttc tgggggagga gctcgaacaa gaatcaagaa ggagccaaag 420  
gagtttacac aagagttaaa gcatacaaa 449

<210> 8830  
<211> 328  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-D11

<400> 8830

gtcggccggg gatcggcggc aaacaacagc ttcgaggccg aggtgaggac gcttggcaag 60  
attcggcaca agaacatcgt caagctcctg tgctgctgca cgcacaatga ctccaagatg 120  
ctggtgtacg agtacatgcc caacggcagc ctcggggacg tgctgcatag caggaaggcc 180  
ggctgctggtg attggccgac gcggtacaag attgcactgg acgcagccga ggggctgtcc 240

tacctgcacc aggactgcgt cccggcgatc gtccacaggg atgtcaagtc caacaacatc 300  
ctcttgatg cagagttcag cgcttgcg 328

<210> 8831  
<211> 413  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-054-Q1-E1-D12  
  
<400> 8831

tcggatatcc agggtcggcc ggtcctccac ggcgtagtcc atttgccgcg acctcgccgc 60  
cgtcagatcc gaccctcta gtactagttt agcgtagtat gtagtataac tatgcttgta 120  
gttttttgat catgtgatga actatgtagt atgtgatgaa ctatatttgt gcaatttctc 180  
ccgcgaaagt gttttttcaa attatgcagg ttagatacg ggttctgttc ggccgcgcta 240  
gttttcgacc cgcaaacgcg atcttcgtgg aaccgcaa at gcgttttgcg ggtcaaattt 300  
ttgcagggtc tgctagagtt gctctaagca cacacatttt tgcttccttg atagatattc 360  
tggtttttcg caaataccta tttcccaacc taatcaagaa aagaccactt tta 413

<210> 8832  
<211> 184  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-054-Q1-E1-D2  
  
<400> 8832

acatggcaag tacaacttcg actgcttcaa ccacagaaag gcaatgctga tccgccggtt 60  
ccgttgccaa gccaacgcaa ggtaaccaac ctaaaaggga aacaaacaaa ggatcctgaa 120  
gggcctcaac caaggcaact tccttgccct gatccttgcg cccctggggt tcccaacgga 180  
aaaa 184

<210> 8833  
<211> 341  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-054-Q1-E1-D3

<400> 8833

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tgtgaggatc ttcttttagt ctgtatgcac cccttgccca ctaatgacat gaccaggtta 120  
ttctatctgt ggttgagcaa atgaacattt attcaacttc acatatagtt gattctgctt 180  
cagaaggcca aatacttgct gcaaatgggt gacatgatct tgcaaggatt tgctgtagat 240  
taagatgtca tcaacatacc ctogttgtaa cttcttctt catttaagcc acaattttgt 300  
ccacagcatt ctggacggtt ggtggtgcac ttgtgagccc a 341

<210> 8834

<211> 482

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-D5

<400> 8834

acggtcagggc acgtccgggt cgaccggaat cccatgagca tgaggaaagg aaagctttgt 60  
gctgcattgg tgttttaagt ctttgagcag tcaaatgagc taagctcctg tgaatgaaac 120  
gcctgtcctg ctaagcccaa actctaattgt gcttgacttg gaagtaggcc actctttcac 180  
tgtgaggatc ttcttttagt ctgtagccac cccttgccca ctaatgacat gaccaggtta 240  
ttctatctgt ggttgagcaa atgaacattt attcaacttc acatatagtt gattctgctt 300  
cagaaggcca aatacttgct gcaaatgggt gacatgatct tgcaaggatt tgctgtagat 360  
taagatgtca tcaacaaaaa caagtacaca aaccctagtc agctcagcca gaattgtgtt 420  
catagcactc tggaggggtg gtggtgcatt tgtgagccca aatatactaa aattcatagt 480  
ga 482

<210> 8835

<211> 488

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-D7

<400> 8835

cggtcaggta taccgggtcg accagcacca tccaagacag tgttcattgcc gaccaggtac 60

ataccgttaa ttagttgag actgacggg attggatcgc agtcaagggg tttgatgctc 120  
gccaccctac gatcgttatg ctgctgaca tgccatttct gaagatcagg caagcatcag 180  
caagcaagga gctggcttaa aaagcttcgg cctgagggct ttgagtaaac ggtacagccc 240  
cgacaagcac gcggcgagcg gcatggtact gagattgtcc acacgtgaaa caatgagctt 300  
gattacctct gtggggagcg aattccaacc actctttcgg ccacgctgc tcggttctgc 360  
cattgttagt gcttgggttt cagacgaggg gggaggcgcc ttagcgggga tggaagattg 420  
gacgagatta tgtgctaca aagatggaga agcgaatatg tgctgcagga agtggacaag 480  
tgatgatg 488

<210> 8836  
<211> 418  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-054-Q1-E1-D9  
<400> 8836

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ggttaccgcg tgcaggggtg cacacagtgg cacacggccg gccaaacaat gtctgggggc 120  
ttgtccttcc tggggaggtt gcatctgatg tggtagattg gttaaaagt acacggttaa 180  
atggcagtta acacctgaag tttattgcag taaactttga ggagcactgg cgatccacag 240  
gagagggatt ggaaacaatg gagttgtctg gtagatttag ggtagaagg actttcatcc 300  
tggtaat tttt gagaagaatt ggaccactaa ttaatatagt tgctttacaa ctaagtaac 360  
cgtccagaa tgaagatcat gatgatgctc tcaaatggag aagccacttg agctaaac 418

<210> 8837  
<211> 478  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-054-Q1-E1-E1  
<400> 8837

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gcttcatcga cttcagcgag ttcattctct tctgcaacgc caaccgggg ctcatgaagg 120

acgtcgccaa ggtcttctga atcagttcat ttcacctcag ccgtccgttc caggagccga 180  
 tccatctacg tacggcttcg tatatcaatt tcatgcaact acctactcgg gtcccgatcc 240  
 agcctcagct tcacctgagg cgggccctaa atttgtttga tcgattcttt tgctactagt 300  
 agtaactagt gatgatcact gttgcatcat ttatttattt attttatata tcatcacaag 360  
 tttcctgtga ttcttttctt tctatacctt tttgtcgatc gtcggctcca gctcgatcga 420  
 acgatccatg ctgctaattg tttgtgtacg ggtgattaag taacttgtgc acttgtgc 478

<210> 8838  
 <211> 259  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-E10

<400> 8838  
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 tttttgggcg caaaattaac aaaagggtgg ttttaattcct aagttcctta agttttccaa 120  
 ccttgaccga tgtttgggcc caaaatgtcc ggaattttaa gcctttttgt gttacctttt 180  
 cctgccgtgg ttaaaatttt tttccctcta ggtaatgaca tgagcaattt ttaagaaaaa 240  
 tttataccca taccaattt 259

<210> 8839  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-E12

<400> 8839  
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 gtccaacgag aaggacatca aggagatcaa cgtggaggat gacggtattg tcgccatcgc 120  
 ggatgcctcc gtgggcgtat tcaccaagga ggatgacatt atcatctcgg ccgatgctcc 180  
 ggcgatagag aaggacaaa tcgacacgtt cgtgcctgct ccggcagcca aggccaacga 240  
 ggatgccggt gccaccttcc tggctgcccc ggtggccggt gatgatggca gtgcctcctt 300  
 cgttgctgcg ccggcggcca aggaggacga acttgatatcc atctcgtctg ctccgttggc 360



gggggagatt gagggatatca ccatggcggc tgctccggtc gctga

405

<210> 8840

<211> 353

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-E2

<400> 8840

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aaaatcccaa tcccgccaga atggctaagg ggttaatcct ggggccgga tgcaaaaagg 120  
gaaaagccaa gaccaatggt tcttggaca atccaatgac caaaggaaca aagcctcaag 180  
gtgtctaaaa aataattcca aaattggtta aatttgaagc ctaaaccaag gaatttaacg 240  
ggcccaacct tggggaaaat tttgaagaaa atgtaaaagg caattcccca accttcgaat 300  
ctcaatccac aaaaccttga caatgaaaac ccaaccaggt ttccaaaaaa caa 353

<210> 8841

<211> 487

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-E4

<400> 8841

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tcaatgtcat ggcccttggc cccgcgcagt cgccctacga atgtggagtc gtcaagcttg 120  
aacttttctt acccgaggaa tatccgatgg ctgctcctaa agttagggtt ctcacaaaaa 180  
tataccatcc catcaatgac aagcttggtta caatatgcct cgacatccta aaggacaagt 240  
ggagtccagc tcttcagata cgcactgttc ttcttagcat tcaggcactg ctgagcgccc 300  
caaaccaga tgattccctc tcagaaaacg tcgcaaaaca ctggaaatcc aatgaagctg 360  
aaactgttga gacagcgaag gaatggactc gtatctatgc cagtggcgca tgacaagcta 420  
acgctgtcat ggatgtaata acaccgtgtc atagttgggc ctaatctaaa accatttcct 480  
tgataaa 487

<210> 8842

<211> 447  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-054-Q1-E1-E5  
 <400> 8842

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 cttgtactaa cgagcttacg agttttctat taagttttgt gttgtgaagt tttcaagttt 120  
 tgggtaaaga ttcgatggac tatggaataa ggagtggcga gagcctaagc ttggggatgc 180  
 ccaaggaacc ccaaggtaat attcaaggat gaccaagagc ctaagcttgg ggatgccccg 240  
 gatggcatcc cctctttcgt cttcgttcat cggttaacttt acttggagct atatttttat 300  
 tcaccacatg atatgtgttt tgcttgagc gtcattttat tttgttttgt tttgcttgct 360  
 gtttgaataa agtatcaaga tctgaaatta ttaaatggga gagtcttcac atagttgcat 420  
 aattattcga ctactcatcg atcttca 447

<210> 8843  
 <211> 321  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-054-Q1-E1-E6  
 <400> 8843

gggtcgaccg ggtatgtcgt gaaaactaca tatttctgct gaagaaacta cataatagtt 60  
 ttactgatcg aggaggaaat tacttggtt caatattggg aatggtaggg agagaaagaa 120  
 tatgccattc tctctagctg gaaaggacac tataccatac tggatgttat aaaaaaattt 180  
 ggtcatgccc cgggaaacat tgaccacctc aacgttgact ctatttccgt tacaatcaat 240  
 caataactgg tataatacca tgaccctgg cctgcttctt ggcatatttg tggttgttca 300  
 aacctcaaca ataaaggttt g 321

<210> 8844  
 <211> 483  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-054-Q1-E1-E7

<400> 8844

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tggcgatatc ttccatgcta cacacattat aggcggttcc caaacagaat ggtaaagttt 120  
atactcccc tccaccaaca agcatcaatc catggcttac tcgaaacaac gagtgcctcc 180  
aacaagcaac agtcccaggg ggagttttgt ttgcaattat tttgatttag tttgcataaa 240  
gcatgggact gcgcatcccg gtgaccagtc attttctcat gagtgaggag tggagtccac 300  
tcctcttgag aataacccgc ctaacatgga agataagggc agccctagtt gatacatgag 360  
ctattcgagc atacaaaaca gaatgtttat ttgaaggttt agagtttggc acatgcaaat 420  
tttacttgga acggcaggta gataccgcat ataggaaggt atagtggact catatggaat 480  
aac 483

<210> 8845

<211> 480

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-054-Q1-E1-E8

<400> 8845

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ggatcaaagc atcccaagga gaaacctcca ggtcgatcaa atgcagagtg actgatgcga 180  
ggcggaagca tgagctatac tttgactggt tctgagggtt tttcaatctg ctccacactc 240  
ggacgacttg agctcagcg ttaccctatg taatgcatgc aattcccctt gttccaagca 300  
agaaccttga agaacacaga ctgccttaa atgaataacc tggccaactg gccacaaacc 360  
ttcaaactgg aagtgttaca atccttgat aagagaatgc taaactttcc caataaggca 420  
atctcctggt gcggtgaattg cgggtctaaaa agctcaaaaa tgaatgtggt tttcgcttac 480

<210> 8846

<211> 464

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-F10

<400> 8846

gccgtgagta atagtgcaga gaattcacca gaaaaataat tcaattaaat tcttaccaga 60  
attagaatgc cccaagaat ttttaagttaa caaaatgggg aaaaaaaaaac attacaaccg 120  
tccggtgtac ggtcacaaag cacaacagcc aaagtctgct cacttgcgta ctgacatgac 180  
atgttggatc catccaacca agtgatatgg cgttatctac cgtgctggct agctagtgc 240  
ccactgaccg ctgaagtact gaacccatat acaccacgat agtattctgg tcccatatgc 300  
tcttgagtc cctacgtcgc gtggcttcta gtatttcacg atgcatgata aatacttcct 360  
ccatcctaaa attattgtct tagatttatc tagatacaga tgtacctaat actaaaatgt 420  
aatttgatac atccgtatct aaacaaatct aagacagaaa tttt 464

<210> 8847

<211> 179

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-F12

<400> 8847

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aacaaggtcc ccaacttcat tggcaattgc ccggaatggc aacaccatgg taattgaacc 120  
cttctggcaa aacaaccggt tacccaatcc aatggccgga ccctccggct tttcataaa 179

<210> 8848

<211> 482

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-054-Q1-E1-F5

<400> 8848

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tctcagtcaa acaatgaggc aaatgttagt gcgcgcacac atcaatttcc taactaaaat 120  
cagaaggctg tgagccattt gatttatctt aattgcatgc tttttccagg gaaatctgga 180  
aagcacacag gaagtgcagg tgaaccaaac gagcttatct caatacaggg acatccagag 240

aaagattggt gagtttatca gaaagagata ccatattctg gaaaaatgct tggacattga 300  
 atatgccgtg ataaaaacaa atactcctgt tcctgatgat cttactgaac aaaatgttcc 360  
 tatgggacat agcccagctg ttccagatat cagtgaagtg ttgagagaac ttccccctct 420  
 tgtaccaatt tctgccaaag aagtggcttc tgatggctca actgaccang cacaccttcc 480  
 cc 482

<210> 8849  
 <211> 366  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-F6

<400> 8849

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 tgtgattata accggtcata atggcactat aaatgggcaa ggccaaagt ggtggatcaa 180  
 atttcgcaag aaactcctca atcacaccag gggtcctctt gttcagctca tgcgggtcaag 240  
 taacattact atttctaaca tcacattacg tgattctccc ttctggacac ttcatttata 300  
 tgactgcaag gatgtcaaag tctcgggaac tactattctg gctccaattg ctggggctcc 360  
 aaacac 366

<210> 8850  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-F7

<400> 8850

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 tttattgcta aagttaaaat ggaaatagtc gtgtgcaagg agcagggtga gccagtaatt 120  
 gacaaaataa ttgagaaggc cagaactgga gaaattggtg atgggaagat attcttgata 180  
 cccgtcgcgg atgttgtaag ggtacgcacc ggcgaacgcg gagtgcattg ggagaggatg 240  
 atcggcggtc tgtcagacaa actgcctccg gtgatcacia tctcatgagt agagcttgac 300

tgctcttgcg gctgtgaact gtaagcgcat ccctcaggct ggttgcttgt ggccgtgtgt 360  
gtcttgacct ttggggaata atgtgtatgt aactttgcgt gttggcacga ataaattggc 420  
accagcatc 429

<210> 8851  
<211> 289  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-054-Q1-E1-F8  
  
<400> 8851

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aaatctatct tagggaaagc ccgatgtgtt gacatatatc atagagctca ctatcttctgt 120  
gtgttttccc catcattcag ttgcctcgtg gtgactgacg acgtagctgc ataaatatct 180  
aaaagccgag gtagcagtgg gtctctctca ctgatcaaat ttgaggcggt gagcatggaa 240  
acatctgtgt tatgttcttc cttgggttaa ttaacctggt tttcctccg 289

<210> 8852  
<211> 425  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-054-Q1-E1-F9  
  
<400> 8852

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atcttctgcg tcgcctgcgg agccatcctc ggctggaaat acgtgtctgc atttgacaag 120  
gatcagaggt ataaggaggg caagttcatc ctggagaggt gcaagatcca ttcgggcgga 180  
ggcggccctc ccgaccgcat ccagctgtgg gctgagcatg acgctcgcat aagttccagc 240  
gaggatgacg accagggcgc cgtgtgacct tgcaagacaa tgcaagatca gttcattagg 300  
caggcagaca tgacatgact gtaaataatta gtgttaatca gcgtcgttcc gttccctggc 360  
actgcaaadc atgtagctgc tcgctagatg aagaacctg aatgcttaac tatctatgca 420  
tatgc 425

<210> 8853

<211> 396  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-054-Q1-E1-G1  
  
 <400> 8853  
  
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 acggctgcac acacttaaac tcgattgggt ggaagagatt cctcgatggc aagaatcttc 120  
 gtgttggaaca ggtcatccta attactatca ggaacaccca ccgcccaggc ttgaggatga 180  
 tgatcgtatt tgatcatc tagaactata tatgtgtgtg tggctatatc atctagaact 240  
 acatatgatg atcgtcgtcg atatcatcta gaactacata tgatgatcgc cgtcgatatg 300  
 accttgact gcttgaggat gcatgttgac tatacatgaa attgttatct agtactccct 360  
 tcgttccaaa ttaatcgtcg tgggttggaac taaaac 396

<210> 8854  
 <211> 423  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-054-Q1-E1-G10  
  
 <400> 8854

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 ggaaattggc ttaaaaccca agaaggctgg gaatacaaga ttaaaaataa aactttctaa 120  
 tgagtgtgtt gaatactatg ataagtttga tacttgataa ttgttttgag atataaagat 180  
 ggtgatatta aagtcatgct agttgagtag ttgtgaattt gagaaatact tgtgttgaag 240  
 cttgtgattc ccgtagcatg cacgtatggt gaaccattat gtgatgaagt cggagcatga 300  
 tttatttatt gattgtcttc cttatgagtg gcggtcgggg acgagcgatg gtcctttcct 360  
 aacaatctat ccccttagga gcatgcgcgt aatactttgc tttgataacc tggaaaattt 420  
 tgc 423

<210> 8855  
 <211> 385  
 <212> DNA  
 <213> *Triticum aestivum*

<223> Clone ID: LIB104-054-Q1-E1-G12

<400> 8855

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tgattacggt tgaggtcaca taggttatac aagaatatat cacatgggtgt atgctctttg 120  
cggatgattt ggtgctactt gacgatagtc ggacggggta aataggaagt tagagttatg 180  
gagacaaacc ttggagtcga aagggttttag gcttagtaga actaaaaccg agtacatgat 240  
gtgcgggtttt agtactacta cgtgtgagga ggaggttatc cttgatggcc aagtgggtacc 300  
tcagaaggac acctttcggg atttgaggtc aatgctgcac gaggatgggg gtattgatga 360  
agatgtgaac catcaaatca aatcc 385

<210> 8856

<211> 285

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-054-Q1-E1-G2

<400> 8856

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gcggcctaaa taacctgaca tattgccagg aatattgggt aaattaggaa atggaagtga 120  
tttcagcgac aacaacatgg aattttggta atgatgggtg acaattcctg ggcaatggaa 180  
aacgcgacgc agggtcangg gcttgtgccc ttcggtggga aaacgagtaa catgttggtc 240  
gggctggagt tcgtgatggc caatggttct ctacaatggg gactg 285

<210> 8857

<211> 289

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-G3

<400> 8857

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cgtaatgcaa gaatgtgccg gtggctctcc ggttggaaact cctccaaatt tgaaccgggc 120  
ctccgggtcc tcctcaaggg agttgcgtcc aatgacaaaa atcccctggt gctattaaat 180



atccgttcct ggggaaatct ctctatccct ctcccgttac attgtgtgcc cttgggtttc 240  
ttaaagctga tgataaagtc tttctcctc agacaaaatg aactgtacc 289

<210> 8858  
<211> 489  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-054-Q1-E1-G5

<400> 8858

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aagaagggat aatgactatg gtgaggcgtg tatttatagg gacagggatg gtacagcggt 120  
attacacagg tgcccctggt gattcacatc tgaaggacac ctggccatca tgcaacatat 180  
aggaggttgt tccacgttcc cagcgacgcc tggattgtcg ggtggtcggt cccacttctt 240  
cgggtttcag gtgaaggaat tagcattgaa agcggactta atgtttgtct ctgtatcttc 300  
tgctgacaag gacgcagaga agacattcaa cagtttcaag agaatgcata tgatttggag 360  
agatagagtt tgagatagaa agcatagaga ggttanggtc cgatcacatt cacttagttc 420  
anaagattca acangaagac atagctataa gtgaatgctg taaaggacag aacactagta 480  
tatatatat 489

<210> 8859  
<211> 452  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-G6

<400> 8859

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ttcatcacc aggaggcgag gcagatcatc atctcgcccc caacagccaa ggagctagtg 120  
atgaagctgg aggagtacgt ccccgagtat gaggtcggcc tgggtctggga tgaccagaac 180  
cagatgccaa gcaacagcct ggtcccagag ccgctggaga caccgcgat cacttcatcc 240  
taatcgatgt gcctcgcta catctcagtt agggttctaa caacagtgtc gagatagcgg 300

cgccacatat atttattctc tcctagataa gtccctagcca actgaagggc gacgaggggg 360  
cacattatag catgtgtgct tgttttggtg gcgtcgatcg accgatctct tgtgtcaccg 420  
ctgatgattg ttttgggtgg catgattata tt 452

<210> 8860  
<211> 474  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-054-Q1-E1-G7  
<400> 8860

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ggtgggtttta.ttttatagaa attattgata tctcatgctt cacttatatc attttgagag 120  
tcttttagaa catcatggtg atttgctttg gctataaaat tagcccta atgataggca 180  
tccaagatgg gtataataaa aaatttcata taaagtgc attaatactat gagaagtttg 240  
atacttgatg attgttttga gatatgaaga tggtaatat agagtcatgc tagttgagta 300  
gttgtgaatt tgagagatac ttgtgttaaa atttgtgatt cccgtagcat gcacgtatgg 360  
cgaaccgtta tgttattaag ttggagcatg aattaattaa tgattggctt ccttatgagt 420  
ggctgtccgg gaacagcgat ggtatttcta ccaatctatc ctccctaggag catg 474

<210> 8861  
<211> 281  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-054-Q1-E1-G8  
<400> 8861

ccgcaagaaa gcaacgagcg cgctttccta tttgggggtca agagtggcgc tgatggtgaa 60  
tgtaccacca gtgccatcct ccttggcgga caccttctta gtcccagggtg gagctgccat 120  
tgccttctta cacttgccgg tggagctcga tgggtgcgtcc tcgacggtag cgcaacactc 180  
caaagaggtg cacttgccgg agtaggcata agagctcttg ccggacttgg tcttcttcgt 240  
ccctccggga gcttcaacgg caagtgtctt gcgctctgct g 281

<210> 8862

<211> 333  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-054-Q1-E1-G9  
  
 <400> 8862  
  
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 catcgcgacc aagtgatctg gccgctgagc agcgacgcca tggacgcgat gattcgggag 120  
 cagagcagct tctgttaaga aataaataaa gaggatcggt gctcgacaat gttgtggccg 180  
 tgtgttgggt gtgattgttt gtttgttgca gtggctgcat tcaactggctg ggcaccagga 240  
 tctataagat aatgtgtacg tacgtacgta ctgtattcct gaacttgtagc tgtgacgagc 300  
 gagactcgct ttgtaacgtg ctattctgtt gct 333

<210> 8863  
 <211> 384  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-054-Q1-E1-H1  
  
 <400> 8863  
  
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 actggtatgt ggtatgggta ttgtaagttt tttcatataa agtgccttga atactatgca 180  
 aactttgaga cttgatgatt gttttgagat atgaagatgg taatattaga gtcattgctaa 240  
 ttgtctaatt gtgaatttga tagatacttg tgtcaaagtt tgtgattccc gtagcatgca 300  
 cgtatggcga accgttatgt gatgaagttg gagcatgatt tatttattga ttgtcctcct 360  
 tatgagtggc tgtcggggac cacc 384

<210> 8864  
 <211> 249  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-054-Q1-E1-H10  
  
 <400> 8864

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aaccggaggc ataggtaggt cgataatcat gccttacgat cgcacttgtc caaaacttac 120  
ggtttgtcac aaaagtaccc ccaccaatth gaactaccgg gcctttcggc tcaggtttat 180  
accggggatt tcccctgttg ggattttgac acctgccgga cttttcgcgc gcgttgtaat 240  
ttctggata 249

<210> 8865  
<211> 370  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-054-Q1-E1-H11

<400> 8865

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ggggcatgct aaaaagtgcg cagattgtgc ttggagttac caaagctggc gccgctgcta 120  
tatctggata gcaatgaagt ggggtgcaaca gangagaagg agattcttga gctttggagg 180  
gtgctgaagg atgagctgtg tcttccgctg atgatatctt tgtgccaaact caacggggtg 240  
cgcttgccgc cgtgcttgat ggcattgcca ggtgatctga aggctaaagt cttggagttt 300  
gttcctggtg ttgatcttgc aaagggttcag tgccgatgca aggaattgca cgatcttgca 360  
acagatgata 370

<210> 8866  
<211> 394  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-054-Q1-E1-H12

<400> 8866

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ggcgggaagg aaaatccgcc tcccctaaga agcaacccca tgcccaccga aaggaccggg 120  
gatggggtta ctaacaacct tcagctatgc ttacaaaaca aactttgggg gctcccaagg 180  
ccagttcacc aagctaacaa ccggcggcaa cttgaaccaa aatgccccat tacccaatgg 240

gaaactaaac atggcaaagg aaacacctcc attaaaatta taaaaaccaa agatgacacc 300  
acctaaataa atttgggttt ttatgccacc ctaagggatt taaaaaacg cttgttgga 360  
gccaacccca ttttattttt gtcctttgct tttt 394

<210> 8867  
<211> 245  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-H2

<400> 8867

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ctcgagtgga acggcgactt cgccctcgag accctcttct acgccgaggt ggagaacacc 180  
gggcccggcg ccgacatgag ccagcgcgcc aagtggggcg gcatcaagac tgtcacctac 240  
gccga 245

<210> 8868  
<211> 77  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-H4

<400> 8868

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cgaggaagtc cttaaaa 77

<210> 8869  
<211> 406  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-H6

<400> 8869

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ggtgtcgagc ttccacagcc ggaggcagag ttccacaccg actccgacga ccaactccggc 180  
 gatgactccg acgaccactc cggcgacgac tccgacgacc actccggcga cgactctgat 240  
 gaccactccg gcgacgactc cgacgacgac ggacagctgg ttagtcatct ataccattt 300  
 atgtgtcaaa tagatcatag ggtttctctg gttaatcctg cctccccctt tttggaatag 360  
 aaatcctatg gttatgttct cccaatccat gaaatctgag taagtt 406

<210> 8870  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-054-Q1-E1-H8

<400> 8870

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 ttgctctcga ggaagtcctt aaaatctagg cattcaacgt tggcatggca tatgtggtag 120  
 accaagcata agtcatgcac gcaaacctgg atcacggcgg gcttcttcct ctcttcgtcc 180  
 tttagatcct tctctcgtcc caggactgtg gtgtactcaa catctagccc agcgacncgc 240  
 tcatcatctg agtcttcgaa catgcttctg aagcgagaaa ggcatccttt cacaatcccg 300  
 gaagaacggg tgtagatgac gtcgaactca tcgccggtga tggttctaac cttgtactca 360  
 ccacggatcg tggagatttg ggacgccatg gatttg 396

<210> 8871  
 <211> 469  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-054-Q1-E1-H9

<400> 8871

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 ggaacgcact tgtccaaaac gtaggggtgtg ttacaaaagt acccccacca atttgaacta 180  
 gcggcccttt cggtcaggg ttataagggg gatttcgcgt gttgggattt ggaagctgga 240

gggagttttc gcgcgcgttg taatttcggg atagcaaggc gcgggttggtg aaggcgccag 300  
 ttttgggagc acgatatttg aattttcggg atataacaag acgcgggttg aatttttaggg 360  
 acaagcctaa cgtgtagcaa tattgtactt gtacgtacca aatcaattcg cacttccttc 420  
 aaccaaaaag aaaacgacaa aaataaaact attcacacca cacanagag 469

<210> 8872  
 <211> 462  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-A10  
 <400> 8872

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 aaggaagagc ggagtttgga acccaaatcc ggcgcttctg ggaactagag ccagaggaag 180  
 atcccaatat acgggtgtgc ttacgagact cctcgtaagt gagctgagct gtctctgcat 240  
 tgatggcctt gttcacaagg gcttgaatg tatcacaatg atgcaggtgg aggtcacggc 300  
 gcaacttggg ggttagaacc ctttgaatc tagcctgctt cttggcgctc atggacactt 360  
 cttctgtggc ataacgggcg aggttctcga actctctgct gtaagcatca acagccatct 420  
 tattctgggt gagactacag aactcttctc tcttgcgatc ga 462

<210> 8873  
 <211> 465  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-A11  
 <400> 8873

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 gacgccagca aagcaaagga agatccgcaa caaaactctg caaggttaat tctactgatct 180  
 gtacttcaaa cttgattggt gaattgtact aaattccata cccggctctc cgggtggcctc 240  
 cctgcaaaaa aattgagata tctcatatat tggcaaagct aatgcctgag agggagctac 300

caaacaagca tgctttatat ttgggacgtg caggctggaa ggatcattgg taattgatcc 360  
 tatcaaagga aggtgcgac tccagcctga aggaatggct ggttgattca gctataggaa 420  
 gcaatcctgt tctgcaattg attgctggaa tctatattat gcaag 465

<210> 8874  
 <211> 482  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-A12  
 <400> 8874

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 tctccccgaa cacgaatata tggagttgca gttgaggtcg gtggagcgtc agggggccca 120  
 cgaggcaggg gggcgcgccc aggggggcaa gcgcgcccc accctcatgg acagggtggag 180  
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 ggagtttcag gtcattccga taacttttgt ttctgcacat aaataacacc atggcaattc 300  
 tgctgaaaac agcgtcagtc cgggttagtt ccattcaaat catgcaagtt agagtccaaa 360  
 acaagggcaa aagtgtttgg aaaagtagat acgacggaga cctatcaact cccccaagct 420  
 taaacctttg cttgtcctca agcaattcaa ttgataaact gaaagttata aagaaaaact 480  
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<210> 8875  
 <211> 395  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-A4  
 <400> 8875

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 agcatttggg tactggatct atccgctggg agatggtagc tcgggatatc ttcaaccggt 120  
 ttggatggca gtcattgtaat agggtaggca attagtttac ctatttatct ttagccagcc 180  
 ggttggtggcg tcttatcttg gctagtctgt gtgtccagcc tctttaactc tgtgtgagct 240  
 gtctttttac tacttttcgg tcggagactt tggaaccttg ttggaacttt ttatttcggt 300



aataagatgg ccgtatgcat cactctgatg cagtggccgg ggagatcccc ttttcgaaaa 360  
 aaaaaaaaaa aaaaaaaaaa aaaagcggcc gctct 395

<210> 8876  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-A5  
 <400> 8876

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 cagtagcgcg ttccaagaag tgcgctactg ctaagctagc tacagcgcat tcctctatac 180  
 gcgctactcc tattcctttt tcttttttcc cctttttcat ttatttttct ttacatttta 240  
 ttttttttcc tttcaccttt ttctattttct ttcattttca tttactttcc atttaatttt 300  
 atttccttta gcagtagcgc ctttcatcgt aaacgcgctg ctacaaagca ggtagtggtg 360  
 gcgcggttct acgtacatcg ctactactat gcgtagccta tcggc 405

<210> 8877  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-B1  
 <400> 8877

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 gggttttcat cttgttcagc tccttcctat caatgatact tctgttaaca agatgtggtg 120  
 ggattcatat ccatatagct cactctccgt atttgcggtg cacccttgt acctgagagt 180  
 gcaggcgctt tcagatgcta ttccagcaga tgtaaggaa gagatttcga aggcaaagaa 240  
 ggagttggac aaaaaggacg tcgactatga ggcagcggtg gccacgaaac tcagaattgc 300  
 ccaaaaaata ttttaatttag aaaaggacaa agtgctaaat tcagctccgt,tcaagcagtt 360  
 cttatctgaa aatgaggaat ggttgaagcc atatgctgca ttttg 405

<210> 8878

<211> 458  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-B11

<400> 8878

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tctatggtca catcatcccc ttccccttca aaagaaaccg tcctcggttt cgaggcagtc 120
tttgcaacct tcttcttcaa tgtgacatgt ccatcccctt gattgcgttc tcaaacatcg 180
gccgcagcac gcgtcgcttc ctagaatccc agaatgaata tgtattcgtc cgaccttcat 240
gtgtagcatt gtgatcatat tgccatggtc tccccataa caagtacat gcattccatag 300
gtatgacatc acatataacc atatcagtat aatcaccaac ataaaatttg acgcgcacct 360
tatgagtaac ctttaacttc cctgtatgat acatccactc gacatggtgg gggttgcggg 420
tgcttccata caggcaaccc caaagcttca acaaaccc 458

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<210> 8879  
 <211> 479  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-B12

<400> 8879

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gtagagaat gatttggtga aatgtcttgt cagtttcgag ttggtgttcc caccatcctt 120
cttcaacatc atgacgcacg tcctagtcca cctatgcgaa gagattaacg ttttgggtcc 180
tgtatttcta cacaatatgt tccccttga gaggttcatg ggagtcttaa ataaatatgt 240
tcataaccgt gctaggccag aaggaagcat ctccaagggc catgaaaatg aggaggtcat 300
tgagttttgt attgacttta ttctgacct taagccgatt ggtgttcttg aattgcggca 360
taagggcaga ctagatggaa aaggcacgct aggaggggaa caaataatat gtatggatgg 420
acattctctc actgaagaac actacacagt tctacaaaat tccgccttgg tggctccgt 479

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<210> 8880  
 <211> 440  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-055-Q1-E1-B2

<400>       8880

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ctgttgagtg cttttataaa gtttaaaaac aaaaaataaa taaagagggg aacccaaaaa  120
tttttcaaaa aggaaagtga aagtgaaaga gacaagcatg gttgaagtgg gggagctcct  180
tgaactttgt tcatgctcac ggaaactttg tgaatcttga ttacagaaac ttttcaataa  240
aaataattat ccccttgtag aattccattg tattataaaa ataatgtgcc aaggtttgcc  300
tttaggatgt ttacaatgct tggttggttg tatggtgcag gacagaaact ttgactgtag  360
cgcggtggtt ttaatttttt tactggaacg tcaaacgggt ctgattcctt ttgcactgtc  420
cttccaaaca aatgttttaa                                     440
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<210>       8881

<211>       422

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-055-Q1-E1-B3

<400>       8881

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acccgacgca ctaccgggag ccaaggtttt acaccaaggt gtttaaggaa tgccactcct  180
atgaccaaga tgggaattcc tttgagcttt ctctggtaac ttccaagtgc attggagctt  240
atgtgaagag caagaagaac cagaaccaga tatgttggct atgggagaag gtcaagtgca  300
cagaagacaa aggctttcag agattcctgg acaatgtgca gtacaaatcc actggaatcc  360
tgcgttatga gcgctggtt ggggaggggt atgtcagcac cgggtggattc gagaccacaa  420
aa                                                         422
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<210>       8882

<211>       383

<212>       DNA

<213>       Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-B4

<400> 8882

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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaattaaaaa aaaaaaaaaa aaaaaaaaaa 120  
aaaaaagggg cccccaaaaa ggttcaaacc taacttacc ttgaatgcaa cttcaaacc 180  
ctccaaaatt gccaccaaatt ttcaattcac gggccttctt ttaaaaactt cttaacggga 240  
aaaaccctgg cttaaccaa ttaaaccccc ttgaaaaaaa ccccttttc ccaaccgggc 300  
ttaaacccaa aaaggcccca accattcccc cttccaaaaa tttccaacc ctaaattggca 360  
aatggaaccc cccctttacc ggc 383

<210> 8883

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-C1

<400> 8883

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tgggggccac ttgcttgggg ggcccacatg aacgtgggta gtgggggcaa ggccccacac 180  
ccctggtcaa ggcgcaccaa gatccccct tagaaggaat aagatcatat cccgtaggga 240  
taggatcaag atccctaaaa aggggggata acaatcagtg gggaaggaaa cgatgggatt 300  
tcttttctcc cacctttgcc aacgcccaat ggacttggag ggcaagaaac tagccctcc 360  
accctatat atagtgggga ggcgcattgg agcttcaccc ttccctggc gcagccctct 420  
ccctctc 428

<210> 8884

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-C10

<400> 8884

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 aatgccatga taggtaggta tgggtggctgt tttgatgaag atataaggag gcttatgtgt 180  
 gatagagtgt atcgtatcac ggggtttgga tgcaccggcg gagtttgac aaactctcga 240  
 ggtgagagag ggcaatgcac ggtaccgaag aggctagcaa tggtggaagg gtgagagtgc 300  
 gtataatcca tgtactcaac attagtcata aagaactcac atacttattg caaaagtcta 360  
 ttagctattg aaacaaagta ctacgcgcac ggctcctggg ggatagattg ggaagaaaag 420  
 acaacgtcc gtccccaacg cca 443

<210> 8885  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-C11  
 <400> 8885

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 ggtaagtacg gtggctgttt tgatgaatat ataaggaggc ttatgtgtga tatagtgtat 180  
 cgtatcacgg ggtttggatg caccggagga gtttgcacaa aactcagagg tgagagaggg 240  
 caatgcacgg taccgaacac gctagcaatg gtggaagggg gagagtgcgt ataatccatg 300  
 tactcaacat tagtcataaa gaactcacat acttattgca aaagtctata atctattgaa 360  
 aaaaactact actcacatgc tctgcgggg at 392

<210> 8886  
 <211> 372  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-C12  
 <400> 8886

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gccgttgcac ctgtgatgtt cgggtggttag cagagtacaa aaattgtcag attgggttcgg 180  
 gtgcactgac ggctcgggtgc cacatagtct gtgaggaggt ggtatcgata catcataata 240  
 atgaacgaag attttttcta ctgcaagttg caggggtatg tcttcctttg ttttgttatg 300  
 aaagcaaagc atgtagacc atacgatgtc tgttaaaaga aaagaccatg cgatgcaaatt 360  
 tttattagtc ct 372

<210> 8887  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-C3  
 <400> 8887

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 atttgttgct tgataattgt tttgaaatac gaaggtagta atgttagggt catgctagtg 180  
 gataattatg aaattgagaa atacttttgt tgaagttggc aagtcgtgta gcatgcacgt 240  
 atggtaaaag ttgtgtgaca aatttgttgc atgaggtgct cttttgattg tcttccttac 300  
 gattggcagc cggggacgag cgatggtcct ttccctaccaa catatacctc ttggggcatg 360  
 tgtagtacta ctttgctt 378

<210> 8888  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-C4  
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 atcatctaaa attgatgata aacaaataaa tctcttttga atatttgatg gtcatggggg 180  
 ttcacgtgct gctgagtatt tgaaggagca cttgtttgag aacctcatga aacaccaca 240  
 attcatgtca gatacaaaat tagcaataag tgaacatat aaaaaaactg attcagattt 300

cttggattct gaaatcaaca ctcacagaga tgatgggtca actgcatcga cagcagttct 360  
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<210> 8889  
<211> 118  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-C6

<400> 8889

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tattttaacg attcgtgttc aaaactcatc gcacaccaca atttagcttt aaacacac 118

<210> 8890  
<211> 453  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-D10

<400> 8890

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agttagctca taaaagctca taaatgatcc atttcaccta agttagctaa aaaacaatcc 180  
atttcaccta agttagctca caaacaatcc atttcacata agttagctca taaacgacct 240  
gtttcaacta agttagctca taaatgatcc atttcaacta agttagctca caaacaacct 300  
atttcaactt tgttagctca tatatgatcc atttcaccta agttagctca taaatgacat 360  
atacttcttg ttctagtctt cttcttggtc tagtcaccta tttctaactt tcttatttac 420  
cattttgcag atttcaattc acttcatgga agc 453

<210> 8891  
<211> 480  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-D12

<400> 8891

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 tagctgacca cgcggagtgg agagacgcct acacggtggt cgggtccgtg gtgccggagg 180  
 acatggccat cgccgaggag atgtcgatgc tccccgccag cacagacgtc tggagcgggtg 240  
 tgaccgtcag gctgctgaag gacccgggtgt atatcaaggt gaagagaaga agcaatgcga 300  
 ctgcctattg agctcgccag cgattttgtt cttcttcttc ttcttctttc acatgatgta 360  
 gcagtagtgc caaaagataa gaacacaaaa ttacatgtcc aaacaaagaa agaaagaaaa 420  
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<210> 8892  
 <211> 400  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
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 tgtacacccc catgaagtac cacgggctga acgctcccgg gatgcacctc ggcgtgctgg 180  
 gcctgggcgg gctcggtcac gtcgccgtca agttcggcaa ggccttcggg atgaaggatga 240  
 cggatgatcag ctcatcgccg gggaagaagc aggaggccct cgagaggcta ggcgccgacg 300  
 gcttcgttgt cagcaagaac gccgacgaga tgaaggctgc gatgagcacc atggatggca 360  
 tcataaacac ggtgtctgca aacatcccca tggcccctct 400

<210> 8893  
 <211> 356  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-055-Q1-E1-D4  
  
 <400> 8893

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 ggaggccagg gacttcaacg agggcatgat tcgggtgtgc agcagcggca agggcacgcc 120



gctgatgccc aacaggacgt tcgagaccta cctcttctcc ctcttcgacg agaaccagaa 180  
 accagggccg atcgccgaaa ggcacttttg cctcttcaac ccagacttca cggccgtcta 240  
 cgacctcgga ctctccggg acggcgcgtc cgtggctcca accccttcgc cgaacccatc 300  
 gcccaatccg agccctaagc ccgcgccgtc gggaggccgg aagtgggtgcg tcgcca 356

<210> 8894  
 <211> 384  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-D7  
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 gagccatcaa acgacagaat agatgccgag aaaccatcag aggagaaaga agacgacact 180  
 gtgaagtcac cagaggatag catggctctt gagaagccag ccactgacaa accatcaaag 240  
 gaagaggaag aaggcgagc caccgagaag ccgtcgcatg acgatgctgc catcgaggca 300  
 ccatcgacac acgacacgga ctcgccacc gacataccct cgctgccac agagacgaac 360  
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<210> 8895  
 <211> 472  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-055-Q1-E1-E11  
 <400> 8895

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 catggcaata atatctcgga atggctatgg aaatgccata attaggtagg tatggtggct 180  
 gttttgacga agatataagg aggtttatgt gtgaaagacc gtatcgtatc acggggtttg 240  
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aagaggctag caatgatgga aagataaaag tgcctataat ccatggactc aacgttagtc 360  
 aaaagaacta atatacttat tgcaaaaatc tacaagtcac caaaaaccaa gcactacgcg 420  
 gaagctccta gagggataga ttggtangaa aagaccatcg ctcatccccg ac 472

<210> 8896  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-E12  
 <400> 8896

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 ttgttgaatt tgcggttgca tcgtcgtgac tagttgctgg tcttagagtc tagtctttta 180  
 gagtttcgag ttctgggtcat aagttgtcac gccgcgcgcg cactatcatc atcgcccctg 240  
 ccatctacca ccaccgctta tccgccactg ctccgaatct gtatccatat accaccacca 300  
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 ctgccatata ccaccaccat atatccacca ccaatccgag ttccttgcat att 413

<210> 8897  
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 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-055-Q1-E1-E3  
 <400> 8897

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 cggccacggc gacggcaaga aggacggcga ccacaaggag aagaaggaca agaagaagaa 180  
 gaaggacaag aagcacggcg agggccacaa ggacgacgac ggccacggca gcagcagcag 240  
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 tgtggtagca tatgtatgta atgcgtgaca tgcctcat 398

<210> 8898  
<211> 439  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-E8

<400> 8898

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agaggctatc tgggtgttgt agcagtctcc acccttggtt cgcaaggagg gcgagggttaa 180  
acaggtgcat atccctgaaa ccaatcccat ccgcccgttt aggacgagtc atgtgttccc 240  
acgacatcta gtggaccttc ctgtgacctt cttcatcacc ccaccaaaaa tcccttacca 300  
ttttctcata cttgtcacag aaccctttgg acaggaggaa gacgcccata gtgaagcaag 360  
gaagcgcttg aaccacagat ttgacgtgta cttccttggc cgcataagac atgaattttt 420  
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<210> 8899  
<211> 483  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-055-Q1-E1-E9

<400> 8899

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aggaggcgct cgcaaagggtg ccgccaaga gcgcctccat gtacgtcatg tacatcaagg 180  
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gcgacggcga cgacaagacc atcatcaccg gcaacaagaa cttcaagatg aacatcacca 300  
ccaaggacac cgcaaccatg gaggcaatcg ggaacggctt cttcatgaag ggcgtgaggg 360  
tgagagaacac ggcggggggc gagaaccacc aggccgtggc actgcgggtg cagagcgacc 420  
aggccgtctt ctnacagtgc tacttcgacg ggttacaaga cacgctctac naccacgcgc 480  
aac 483

<210> 8900  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-055-Q1-E1-F1  
  
 <400> 8900

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 cacggcgacg gcaagaagga cggcgagcac aaggagaaga aggacaagaa gaagaagaag 180  
 gacaagaagc acggcgaggg ccacaaggac gacgacggcc acggcagcag cagcagcgac 240  
 agcgacagcg actgagccag ctccggccgc gtgcagtgca ggggagatga acgcgtgggt 300  
 taatttggag cgtgtggtaa catatgtatg taatgcttga catgtctcat ggatcttgta 360  
 atgtaataac cggctgcact gcatggtgct tgtaataata acgtt 405

<210> 8901  
 <211> 353  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-055-Q1-E1-F11  
  
 <400> 8901

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 taaggacttc aatgggttct gcggcatatg caccgagag agacgcaatg gtctggaaaa 120  
 ttaaatacatt tcttgggtggc aaggaatata tgtgtagagc agaatttagt cttcccagca 180  
 taacctcgga agaagcaacc cctgaaaaga aggccccaat acgtgtgaaa tttgagatac 240  
 catattttac tgtttcaggc attcaggttc gttatctgaa agtgatcgag aaaagtggat 300  
 accaggccct cccttgggtt cggtacatca cgatggctgg tgaatatgag ctg 353

<210> 8902  
 <211> 333  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-055-Q1-E1-F12

<400> 8902

cggggtcgac cgtagcccgt ggaggatggc ggatgtcgat ggtggagatg aacagtatcc 60  
cgtggagtcg cgttttgcgg tacgccacac ccctcccaat gagatatgac ccccatctct 120  
tctccccgcg ctagaacaga gatgcgcctc agtagggcag cagcagcagt agcgtctcca 180  
tggacgcggt ggcatgacag ctcccaggca cggatccctt cctctgcctc catcctccac 240  
ctctccggtc ggctgttgc aatgtccgaa gcagcagcaa gcgacctgca gcagctcggt 300  
cctacgttcc atggacgagc tcgatggaga cat 333

<210> 8903

<211> 285

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-F4

<400> 8903

gggagaagga gttcaaggtg aaggtggcgt cggaaaagga caaactcggg aggggctacg 60  
tctttgggaa gctcctctgg tccgatggga cccactatgt gaggagcccc atcgtggtaa 120  
atgccctgga ttgagatttt ttaattttgt ggtgtgtagc tcaagggaag gaagtgtcca 180  
cagtttagga attttatttt tcagtttatt actgagaatg agaagagttt aggttttagc 240  
tctcctggtt gctaataaac gctatttggc tctaaaaaaa aacaa 285

<210> 8904

<211> 475

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-F9

<400> 8904

cgggtcgacc ttcacatgac accaaaaagg gaatcacaac atacatacta tcaaaatatt 60  
gaacacattt caagttcaca tgattacttg caacatgatt tccccgtga cctcaagaac 120  
aaaaataact actcacaagt gataaacatg atcaagatca aaggggtatt aaatagcata 180  
atggatctga acatataatc ttccaccaa taaaccatat agtaatcaat tacaagatgt 240  
aatcaacact actagtcacc cacaagcacc aatctatagt tccagtaaca agattgaaca 300

caagatatta actagggttt gagaggagat ggtgttggtg aagatgttga tggagattgc 360  
cctccccaag atgggagagt tgcggtgat gatgatgacg atgatttccc cctctgggag 420  
ggaagtcccc ttggcggaat cgctccgcca gagggcaaaa gtgctcctgc ccaag 475

<210> 8905  
<211> 412  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-055-Q1-E1-G3  
<400> 8905

cgggccgacc ggttggttaga gcatgggcat accttttgta gaaagaatta aactctcttg 60  
cttcacttat atctatttag agagtgcag gaactgggtca ttcacatggt tagtcataaa 120  
atcctacata aacttgtaga tcgctgaata tgatatgttt gattccttgc aatagttttg 180  
cgatataaag atggtgatat tagagttatg ctagtgggtg gttgtggatt gtagagacac 240  
ttgtgttgag gtttgcaagt cccgtagcat gcacgtatgg taaccgttgt gtgacaaatt 300  
tgaagcatgg ggtgtttctt tgattgtctt ccttatgagt ggcagtcggg gacgagtgat 360  
ggtcttttcc taccaatcta tccccctagg ggcattgcgt ctagtacttt gc 412

<210> 8906  
<211> 378  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-055-Q1-E1-G4  
<400> 8906

cgggacgcga gtaaaactga cgagcacaga acgccgccg ccgcccgcg ccgtcgttcg 60  
ctgggtttcc tcggagttag tctgacttct ccaatcacag cattgcagag ggaaaatagt 120  
aatgggggtg ataaatgcta accctgtgat tcatgagaaa agggagaggc gcatccggca 180  
ggcaccagaa aacatagatg aaaatgcacc agaggccata taccagcttg aaatatttga 240  
tcatattaga gacataaagg acccagaaca tccatactca ttggaagacc ttaatgtggt 300  
aaatgaagac tcagtcgaaa tcaatgatga acttagtcat gtcacgggta ctttcatccc 360  
aacagtggag cattgcag 378

<210> 8907  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-055-Q1-E1-G8  
  
 <400> 8907

aattcccggg ccgacgggga tgcggtggaa gacgatgatg gcgaaccacg aggacagccc 60  
 gcacatccga gagaagggtgc tctacgccgt caagcgctac tggaccgccg acagcgacaa 120  
 gagctcccaa gagaagaagg caactttcttc tgagggtgtga aatataatgg tgagtgagat 180  
 gagctgagct gatgcactgc aactcaggag atcagcgtgt gtttatttca acttcttgtg 240  
 agttttctctc gagtgtagca gtgagatcag cacgtgtatt cctttttgat tacgtcgtgt 300  
 aggatgaaca cttcttttcc attttttcga gatgagatgg taggaaatat tcgacacaaa 360  
 gatctacgta ccattttctg cccgtcacag attcaagaat gttgttatgg cactc 415

<210> 8908  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-055-Q1-E1-H10  
  
 <400> 8908

ggggtaaata agaagttaga gttatggaga caaaccttgg aatcgaaagg gtttagtctt 60  
 agtagaacta aaaccgagta catgatgtgc ggtttcagta ctactaggtg tgaggaggag 120  
 gttagccatg cacagggtgg gcctcagaag gaggacacct ttcgatattt ggggtcaatg 180  
 ctgcaggagg atgggggtat tgatgaagat gtgaaccatc gaatcaaagc cggatggatg 240  
 aagtggcgcc aagcttcttg cattctctat gacaagagag tgccacaaaa gcttaaaggc 300  
 aagttctaca ggacgacggg tcgacctgca atgttgatg gcgttgagtg ttggccgact 360  
 aaaaggcgac aggttcaaca gttangtgtg gcggagatgc gtatgt 406

<210> 8909  
 <211> 243  
 <212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-055-Q1-E1-H11

<400>      8909

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gtatatgctc  tgcggtttca  gatgaagcga  gaatgtctta  tcatgtttgc  ggcaaccaat  120
tcgcgactcg  gatcgaatac  atggggcgct  attctatttc  agctgtcgct  cgacaggatc  180
gattcttact  tacccttgca  tgctactttc  tagttcttct  atattgtcac  ctaacttcac  240
ttc                                                  243
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<210>      8910

<211>      425

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-055-Q1-E1-H2

<400>      8910

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gggtcgaccg  gagtaatgat  tatatttata  aaacttgtca  tgattatgat  tacccttttt  60
ctgaacatta  ctctttttaat  gtggaaacaa  tttatagatt  cgagtttctt  atgacactcc  120
cactattccg  aatgagaaga  attttgctta  tgtggagagt  agtaaatttt  ctatgcttgt  180
agatcatgaa  aagaatgctt  tatgtgatgg  ttatattggt  gaatttattc  atgatgctac  240
tgaaaattat  tatgagggag  gaatatatgc  ttgtaggagt  tgcaataata  tcaagtttcc  300
tctctatgtg  ttgaaaatct  tgaagttatg  cttgttttgc  cttcctatgc  tagttgatta  360
ttgttcccat  aagttgtttg  ctcacaaaat  ccatatgcat  aggaagtggg  ttagacttaa  420
atgtg                                                  425
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<210>      8911

<211>      404

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-055-Q1-E1-H4

<400>      8911

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caagaacagt  ggtcaaagat  ctgaattatg  gacgcttaaa  caagatggaa  caagactttg   60
```



gttatctaag gctcaggctc aatgaagcat ttgacacaat agacagggtt gccaaaggat 120  
 atttgtatgc tataagatac atgccagctt tcttacatca gcttcataat gtgatagcac 180  
 atacttttcc tcctactcgt gttgtggaca agtcaacaaa tgaggctctc aagaatattg 240  
 aggtggtagc tcataatctc aggacagaag caatagtctt gaaaacaagc tatatgtgtt 300  
 gagaaggcag agtcaagcgc gcctgaacat gtgtatcttg ctttcggacc aaatcctttg 360  
 tacttgtgtg gaccaacttt ttaatactaa cggccttggt ccgt 404

<210> 8912  
 <211> 293  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-H6

<400> 8912

acgggtgctt ctgtttcagt ttggttcaga gtcaggctct ggatgttgtc aagtttgttt 60  
 acttatgggc acttgtgtat tggtttattg ctgggcatta tgccttgata ttaaagattt 120  
 ccgcccagta catattgttg cattttgtga agaaaaaaaa aacaaaaaaaa aaaaaaaaaa 180  
 aaaacagaac aaaaaaaaaac aaaacaacaa aaaacaaaaa acatcaacct aaacaaaaaa 240  
 gagaacaaaa aaacaaaacc agcaatcact aaaaagtcaa aaaaaaagcg gcc 293

<210> 8913  
 <211> 475  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-H9

<400> 8913

acggtcaggt attccgggtc gaccggcacc cccagccac gaggctggg gtgttcggga 60  
 taaacttgag cactcttggt cccatttttg ggtccatcta gggaggcgct caacacaacg 120  
 aaccaggcaa ccggacttat aatgcttgaa cactctcact tagccataga attctataat 180  
 tttaaatttc agcgaagccc ctagtcttcg gaaggccgaa tttggggcgc tatccacgcc 240  
 tgggctggac aaagctggct cctcgtctta agcggcataa gtctttaggg acttgcaaaa 300  
 aacctcttga acagcgacca gctctcgct catcataacg gtcagtttta gctttctcca 360

ttgaggcact cgcccagctc aactggggcg caatcgcagt ggttctccca gtgctacctt 420  
agtcgataca atggaacgta aggtaccaaa acatgggagc cgggcaaacc aacta 475

<210> 8914  
<211> 391  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-056-Q1-E1-A1  
  
<400> 8914

cggggatggc gacactcacc accgccaccc tctttcttca agcatccggg gacgcgagcc 60  
cgggcggttca gaagcagcgc taccagacc tgaccaaggc cgacgaggaa tgctttgaaa 120  
cctgctacaa ggagctgacc aatggcgggc aaaaactcga caatttgtgc accagcaaag 180  
agggctcgga cgacatcggc atggcccagc tccccgaaat cgcagcttc atcaaggaga 240  
acaacggggc gcatgccag tggaattgcg ataggtgtcg ccctgcgaat gacaagaaga 300  
caccgacga tgtctccaag aagaacgatg ccgagaaggc catggctgtc ctccacgtgc 360  
tcgtcaacaa agtgacaaa taatgaaaaa c 391

<210> 8915  
<211> 440  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-056-Q1-E1-A10  
  
<400> 8915

tagcgtcaac aattcaaggt cgacggggag gcggagctgc aaacaaggag tgaaggtttc 60  
aacttggaag ggaaggcgaa aacaggggaa atgtggcttt tggttaagggg gagggggcgg 120  
ggaggaagat atttcacac aagccgaaaa attggaatcg cttcagcgaa aaaactggcg 180  
cgcaaagtgt catcagacat ggtcccttat tcagaactgt gtatgatatg tgaaaatcac 240  
aatgattca gataacttaa cccatgtgtg ttgagtttga acgtcaaaat ttttggttcg 300  
aatttcctg gttacagtgg ccatccacgt cattgcataa tttgggtaca caaaggagac 360  
taacttctta atcgagcaag ttcagcaatt aaacatagct agctgaccta aacattactc 420  
taacaaatta aagaccgacg 440

<210> 8916  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-056-Q1-E1-A11  
  
 <400> 8916

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cggggtcggg cgagccgcaa aggtgcactg tcttccttcg ccgtctttgg gctggccatt   60
gtgtggttcc ttcagatgaa ctctgaggac gaggagtaca ttcacctctg atgtgggttcc  120
tcgctagaga tagggatcat caaattgtga atatctacag tacgatttgg agcattgggtg  180
tttgagcttg tttgtaccag tgaagtgagg cattttcagt tgcattgtaga gttatcctct  240
tcatgcagtc gtgctagtag atgatgtttg atgtttttgt gcaggctctt gacctcactt  300
gcatcactca gttgtttgct atggcatcac tgcatactct gcctagggtt ggccatttta  360
atttttctgt ttcctctgcc tgtgcctcga gtagtctcta gtantagttg ccacgagatg  420
ggagcaa                                           427
  
```

<210> 8917  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-056-Q1-E1-A2  
  
 <400> 8917

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cgggtcgacg ggtgctagta tttatgcatg ctatgataat ttgttttcct ataagatttc   60
tatgcatagg aagtatgtta gactcatatg tgtttgtcac atgttttatg atgctctctt  120
tgtgattcat ttgctatcat tcatgtgagc atcattaaaa ttaccaatgc ctagctaaaa  180
ggccttaatg aaaagcactt gttgggaggc aaccaaatat ttttcttttc tgtttttgaa  240
taagtaattc atctagccta tgttttagatg tgttttgtgt ttttaattag gtttgtgcca  300
agtaagacct ttgggatggc ttatggtgat agttgttttg atcttgctga aaaacaggaa  360
cttttgcgcc caggaaaata attttcattt ttttaaataa gcgtgctttt gatctgatta  420
tttttgcaca gattgcacac                                           440
  
```

<210> 8918  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-A3

<400> 8918

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 tggcaaattt aatacacatc tgggtgggtt gtttggggca cctagagaaa ccggtgcttg 120  
 cccatgggaa tcccggagta ctogtgtgat taccctaggc ccgccacca ggctcaaagg 180  
 aatcatatga tatttcatgc ctagaaactt ccgtgtgcag ccacaagcca ttatgggctc 240  
 tggcatagtt gagtgagttg tgtaacctct ttcagtgggtg gactagcaga tgtaggggaa 300  
 agtaggtgta tcggtctacc cagagtaaag agttaatgct tcagaaagac tatgtctcaa 360  
 tcttccgatac atggatgtgg tcgagtcctg tggggaaaa 399

<210> 8919  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-056-Q1-E1-A5

<400> 8919

gaagtgtatt tttttgtagt ggtaagatct gttagtataa taaagcaaat caccactcta 60  
 agtactgtag caaaccaatt catattttat ttttgcattg tgtctacttt aatatagctt 120  
 ttccatggct taatccactg atataaattg atagtttcat caaaacaagc aaactatgca 180  
 tcaaaaatag aatctgtcaa aaacagaaca gtctgtagca atctgaacat tcactatgct 240  
 tatgctaccc ccaaaaattc taccaaaatt aggaaacata aacaagttgt acatcaagac 300  
 agttcaaaaag gaatcagaac cgtttgacgt tccagttgaa aatgtaaaat cgtgcactac 360  
 agccaaagtt tctgtcctgc ancgtaaaa ccaacatgca tttgtaacat c 411

<210> 8920  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-A6

<400> 8920

acgggtataa tcacggcagt gtattttttt gtagtggttaa gatctgttag tataataaag 60  
caaatacagca gtccaagtag tgtaacacat caattcatat tttatttttg cattgtgtcg 120  
actttaagat agctttttcca tggcttaatc cagtgatata aattgatagt ttcagcaaaa 180  
caagcaaact atgcatcatt aatagaatct gtcaaaaaca gaacagtctg taccaatctg 240  
aacattcact aggcttatgc tatccccatt cattctacca gaattatgaa acatacacia 300  
gttgtagatc aagacagttc acaatgaatc acaaccgttt gacgttccag ttgaaaatgt 360  
acaatcgtgc attacagcca aagtttctgt cctgcaccgt acatactagc atccattgta 420  
aacatct 427

<210> 8921

<211> 378

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-A7

<400> 8921

gggtcgacgg ggatctcaat gttggttatt taccggagag tegtctcggt catgtatgcg 60  
tgtctcccaa acccgtaggg tctacacact taaggttcgg tgacgctagg gttgttgaga 120  
tattagtatg tggttaaccg aaagtttttc ggagtcccg atgagatccc ggacatcacg 180  
aggagtccg aaatgggtcca gaggtgaaga attgtatata ggaagtccaa tttcgccac 240  
caggaaagtt tcggtggtca ccggtattgt accaggacca cttgaagggt tccggggctc 300  
caccgggtgg ggccacctat cccggagggc cccatgggct gaagtgggaa ggggaacagc 360  
ccctggtggg ctggtgcg 378

<210> 8922

<211> 471

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-A8

<400> 8922

ggtaccggac gtacaattcg cgggtcgacg ggtaagggga ttgttgcgta tgggataaag 60  
 agaacttgat gctttaatgc tatgggtggg ttttacctta atgatcttta gtagttgcgg 120  
 atgcttgcta gagttccaat cataagtgcata tatgatccga gaagagaaag tatgttagct 180  
 tatgcctctc cctcaaaaaa aattgcaata gtgattatcg gtctagttat cgattgccta 240  
 gggacaaata acttcctcgt gacaaaaagc tctctactaa aacgaactta gttgtgtctt 300  
 tatctaaaca gccctagtt tttattttacg tgctctttat attcttgcaa acctatccag 360  
 caacacctac aaagtacttc tagtttcata cttgttatag gtaaagctaa cgctaagcgt 420  
 gcgtagagct gtaccggtgg tcgatagaac ttgaggggaat atttgttcta c 471

<210> 8923  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-056-Q1-E1-B12  
  
 <400> 8923

cgggctccta gattggcaag gacaaatata cttccatgga ccaaaccaaa cggatacaaa 60  
 tgaacatgcc acccgtgctt ggaaaaatat cctggagcgg catgcatgga cccgtaccgc 120  
 ctataccacg tgggcccggg tacctgtcca ggggcccact ggcccgcgcg ccaccacccc 180  
 actgacacta taaaaagaac catgcgttca cagtccacgg tcacaactca gaccaacaca 240  
 tctgtccag tcaaaactag ctcttagcca caagcagggt aaaaatttca acgaaatttc 300  
 agtgaaattt ccgaaatttc agtgggggtgc gaaatatctt taaccctgaa agttcaatgc 360  
 agtttaaaag taaattcaaa ataaatttaa aattttgttt aaattcagta aaattaaatt 420

<210> 8924  
 <211> 318  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-056-Q1-E1-B2  
  
 <400> 8924

cgggtcgacg tggtcgttga ttatgccgcc tgatccattg tcaactggatg taaagtggta 60  
 acagtttctt cttgtttaat tacttccgaa aatgataagg gctggtaaga aattgcacat 120

atacatcaat ttctgtaaa attgtccggg ccagaagtgt acctgcaaatt gtgggtttgtc 180  
 tgtaacgcaa tgttgaaatt ttgtactgtt cttgactacg ttgtccctt ttctccggac 240  
 cagtggggtg gttgatttca gcttattacc tgaagttgta gatatatcta tttgtcagta 300  
 tggaaacatc tactgtat 318

<210> 8925  
 <211> 240  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-056-Q1-E1-B3  
 <400> 8925

aaattccaag gcccccaagg tcaaaaaggt caacaattcc ggctcaaatt gtcctaacgg 60  
 aaagcacccc aagccaacaa tctgcgaaga tgataaatga caaatccggt gccatgggtga 120  
 cacagtcctt cctaaggacg ttttgaaaag ctattgtgtt tcgtgccggc cattctacct 180  
 aaatctcagt tgttttctgt tagagttatg tttcacgctc aagaataaat tatttctgtg 240

<210> 8926  
 <211> 458  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-056-Q1-E1-B6  
 <400> 8926

ttcgcggggc gacgggtgga tgcaagcact tagaatcatc caatgggtcc actctcctga 60  
 acttaagggt ttggcaaggt aactacaag caggagaaag aatcaagggc caaagagcaa 120  
 gcaagaatat ggttgccata caaaccatca agttggacca gaatgaagat gaggttgata 180  
 cactcaaatt tttcaaacaa catcattggg tttttgcata aagttgaatc ataagctact 240  
 acccgcatcc cataattttg gtggaggcta gaaggaagta tttaaatgag ttgtagtga 300  
 aaattgccc aatggaccaga gaagaaaatt ggggtgtagag ctcaaaatat ttcatagaata 360  
 aaagacattt ttgcataaaa gtgatttaaa aacatcacct gacatctcca nattttggtt 420  
 ggaacttta atgaatttat cagatggttg tagttcaa 458

<210> 8927  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-B8

<400> 8927

attcgcgggc cgacgggagc atcaacctag agctctgcat catcctctac aagcaagtac 60  
 cgaaccacca tggccatgcc actcgccatt gtgcaccaat ttgacgacga tgatttccac 120  
 agctttgttc atggatggct ggcttaacga aagctcacgc cgacgcctcc ggtgtggctt 180  
 cccctaagcc tccagcatag ggttcttgta catgcgaaag tgcattgatt ttcgatgggt 240  
 gtctagctgc agttgtctcc ccatgtaatg gcatcaagtt cagagcgccc caactgcctc 300  
 tccttcgacc gtgggtcagg tagtggctcg gtctccactg tactctatcc cttgctctgt 360  
 ggtgcctggc cattgtgctt agtccatgct gtgacccctg ttgt 404

<210> 8928  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-C10

<400> 8928

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 atccttccac cattgctagc ctctctagta cagcgcaact ttcgcccga ccataaacct 180  
 accataccta cctattatgg catttccata gccattccga gatataattgc catgcaactt 240  
 tccactgttc cattgttatg acacgcttca tcattgtcat agtgctttgc atgatcacgt 300  
 agttgacatc gtatttgtgg caaagccatc gttcataatt ctttcataca tgtcactctt 360  
 gattcattgc atatcctggc acacggccgg aggcattcac atagagtcac a 411

<210> 8929  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-C11



<400> 8929

cgggccacac catgatgcag gaaacataag cccttggtgt attttaccg taccaaactg 60  
tacagatgca acatgcagta catgatcata tgtacataag tgaagtgcag ttatcagcaa 120  
attggtgctg cattgtttat tcaacaaaga ctgctgtaca ggcatcacga taaaaatggt 180  
gcaataagca agggatggga ctgttacaca tgtccccctc caagggttaag ctgccgatgg 240  
tgcttacaac agatttaatg ctcgtaatgc ataccacctg gatattcatt gtagccttta 300  
tccttccctg tctgtatgca tcgtcagttc ggcaggtctg ctgccggcca gggcctctgg 360  
cgaactgtgt cctacaggta ggcggcaaga atggaacaaa a 401

<210> 8930

<211> 345

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-C12

<400> 8930

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gtacacacct tttgggagaa gcctatttga ttagaatttg ctagaatact ctatgtgctt 120  
cacttatatc ttttgagctt gatagtcttt gctctagtgc ttcacttata tctttttgag 180  
cacagtgggtg tottaatttt gaagaaattg ctagtctctc attcttcact tatatctttt 240  
tgagagtctt ttagaacagc atggatattg ctatggtttt aaagtgggtc ctagaattat 300  
gagcatccaa gctgggtata ataaaaacta tcatagaaag tgaat 345

<210> 8931

<211> 167

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-C3

<400> 8931

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ttccttccgt tgtgccaagc tgggtgtgaac ttgtcctgct ttccgcctga cctaactgat 120  
gcccctaatt ggggccctcg aaggaaactt caacactgga atccttc 167

<210> 8932  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-056-Q1-E1-C5  
  
 <400> 8932

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gggccgacgg gctcgacgac gtccttgtcc agaacaataa cagtgttatc tccgaccatc   60
cagcgggaaga gaaggcatag gccctggcgt tgcggtcccg atggcgaaag accatgcacg  120
tcacctgaa gtttgagagg ctgatgcccg cgtccgcgtc cgcacctctg ccgccgagga  180
gacagcgccc aacatgttgc cgctgtggaa ccacgctgag cgagggattt ccttgtagtg  240
ccgcacaagg ggatcgaga tgaggagccg tggcgcccg cacctgtgga agaggagcag  300
gaggtcgccc cagatatcgg cgagctcca gccgcaatcg gcaaattccc ccagcgggag  360
gaagttgagc gccagatttc gatcggcgat ggtgcccgcc cac                      403
  
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<210> 8933  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-056-Q1-E1-C6  
  
 <400> 8933

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acgggataaa cgagagagaa ggaagtgcac aatagatgtg ttaatctgaa catacaaggt   60
ccatccagta gtcctacaat aaaagaagag ttagtatgta gttctagcac atcaaataca  120
acaggtttct caagctctac atttagtgct ttaggaaaga ttgacaagga caagatggcc  180
atggagttgg ggtccctgca gacaagtaat ccaactatct caagtttcca gtgcacacag  240
tccttgagtc attcatctga attatcatgc tcttctcgaa tatcaacagg atctacccta  300
ccttccaaaa ctactaagga actgtttggg attgagactg aatactgtgt ggccaaggct  360
tcacgtgccc aggttagtca actggggaaa ccttcttcaa agcaatccaa tgaagtctcc  420
tggc                      424
  
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<210> 8934  
 <211> 433

<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-C7

<400> 8934

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ggtttctgga agtacgtctc caacctcgac aggcgcgaga ctgctcggtta ccttgaaatg 120  
ctctacgccc tcaagtaccg caaaatggct gaaactgtcc cattggctgt tgagggcgag 180  
acctcgggca aatgatttgt ccttaccaga gaaataaatg gcgggcgagc gctccgcttt 240  
accgttcttg attcagtgat ggagcacaga tcggagcgctc ttatgccttt gcttgtcctt 300  
tgttaccggt cttgattcag tgatgaactt tagttcctgt tgagtccccg tgttgtcgcg 360  
gtaggggaac tggatggatg ctgtgttggt ggcactttct catggataca gtatttgaat 420  
gaatgaataa aat 433

<210> 8935  
<211> 442  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-056-Q1-E1-C8

<400> 8935

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ggacctgatt cattgccctt tgtttttcaa aataaagggg ttctgtttta gacttttcca 120  
attgttccaa actaatagaa gtagcattaa tcaaatttgc tttttctcgt tctatctcag 180  
agtatccatt cattcgatac tcatccgctt ctagttcgac tttctgtaat cgaatccgag 240  
ctttttcgag ttgctcaatg gtcnctctac gcaattcttc tgaatttcga atagtactca 300  
agatcctctg ttttcgatta tctaataaat cttttaatga aagtagatta ttttgtaagt 360  
ttacaacttt tatgatctct tcccgaacca aacatgaatc tttcgattca tttggctctc 420  
aagctcctta tttttttttt tt 442

<210> 8936  
<211> 403  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-056-Q1-E1-C9

<400>       8936

gacgggcggg ggcaccctcc tatctcgtgg aggctccggt tgtttcttga cttgcactcc   60

aagctctccg gatcttggtc gttccaaaaa tcacgttccc gaaggtttca ttccgtttgg   120

actccatttg atattccttt tcttcgaaat actgaaatag gcaaaaaaca gcaatatggg   180

ctgggcctcc ggtagtagg ttagtcccaa aaattataat ctctccctaa taataaagca   240

cgaattgggt ctccgggttc accgtcacia tgcgctttct tcttcccatg aatttacgct   300

ttcagttttt ctcacctaatt attattttcc acatccaagg tgggtactatt ttaactgtgt   360

atactaaatt caacatgcag tccgttcgta aagcctcgct cga                   403

<210>       8937

<211>       444

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-056-Q1-E1-D1

<400>       8937

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tgcccaactc cgaggtcggc ccggttcacg cccccagggt cccaagacc gaggaggaag   120

ggtggtggct ggtggtcggc gacagctcca ccaagcagct gctggctatc aagaggggtca   180

ccctccagaa gagggcccgt gtgaagctcg agttcaccgc cgccgaggag ccagggacga   240

aggactacat gatctacctg atgtcggact cgtacctcgg ctgcgaccag gactacgagt   300

tcaccatcga catcaaggaa gctggaggcg actaatctca aacacccaaa actctttttt   360

atactgggtt tttgctctta tgtagacaat attatgtgac ctggaactta tcatcttttt   420

gtctgtaatg ttacacctga attt                                   444

<210>       8938

<211>       359

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-056-Q1-E1-D10

<400> 8938

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cctattatgg catttccata gccattccga gatataattgc catgcgacat ccaccatcat 120  
catcatgaca tacattactt ttgtcatatt gccattgcat gatcatgtag ttgacatcgt 180  
atttgtggca aggccaccat gcattatctt tcatacatgt cactcttgat tcattgcacc 240  
atcccgggtac accgccggtg gcattcatat agagtcatat cttgttctaa gtttcgagtt 300  
gtaatcctta tgttgtaatc aatagaagtg tgatgatcat cattattaga gcattgccc 359

<210> 8939

<211> 410

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-056-Q1-E1-D12

<400> 8939

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ggcggcggcc tetgagagca cgccggacca gtgtgtgten catacccgcc aagtggctag 120  
gttgggtctt cgggtcttag atgttaggct tggtgcgat gtctatttgg tattaggccc 180  
aggctatctg cgccccctca tcaactgaat aggtgtagcg acagtttggt gcttgacgg 240  
cggctttagc ctactgttg tatggcttg taaggcttg tgagaataat taataaatg 300  
gccgtatgca tcgccagat gcagaggccg gggtcactct ctttttctaa aaaaaaacct 360  
aggcgttacg attttagcat ggccatgaat caaccagaac catcgacaga 410

<210> 8940

<211> 391

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-056-Q1-E1-D2

<400> 8940

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cgcttgccg tgctgaagac gaagagcatt ccagtgactt cgagccagaa gaaaatggtg 120

atggtgctga ggacgaagag attgaggatg acgatgctga ggatgggtgag gatcctgtca 180  
 aggcgcaatc ctcacaaaag aggaagaggt ctggtgggga agatgaagat gatgacgacg 240  
 gtgatgatga tggatgatgat gatgagaagc ctccatcaaa gcgatagtca atttggtcgt 300  
 gctgatctgt gatcttctct gcttgggcca agaaggaaaa taatcctcat ggagaggatt 360  
 gttgggaaat gctgtacctt tangacatct g 391

<210> 8941  
 <211> 226  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-D3

<400> 8941

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 tgactaatgc cccctttaat tccggttggt gccaccaatc cggactaaag ggcattgtct 120  
 gccgcgctcg cgacacgaaa gtttaatccc aactcgctaa ctgaaggaaac tccaaaatgg 180  
 tttaaaagcc ctaatcccg cgcctctcg aactccttcc aaatgc 226

<210> 8942  
 <211> 365  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-D4

<400> 8942

cggcatgttt atcaagaaag ataactcaga tggcactgac atcttcgtta ataaagtaat 60  
 taccacaga taggtaggtc accgttaatt actggtagtt tgataattac cccttcgaca 120  
 gcaaaaacta tatttaaatc aaaccttgag cagattttgg acacaataaa ttccttgag 180  
 taatttaacc tactaatggt cacacaaact aacgaaccat tctaataaat cataaactat 240  
 acaaacacat gctatgattt aatgggtata acataattat aataatataa aattaagtaa 300  
 tagaacatgg aaagtgtaca aatcaagtac accagtttcc ccataataaa cgtactacta 360  
 tgttt 365

<210> 8943

<211> 446  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
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<400> 8943

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 tttgttgtag tcacagacca taatgggtctt gtactacata tgttgtagttt tgcattggaat 120  
 ttctgtatca agttgggtgcc tcatcagcta acagttatcc tggggctgat gagcacaagg 180  
 gccattttct gggaattaac acccgagat tcgggtcgcca cagacttggg atcagagcca 240  
 ggctgacatc tggctaattc tatcttagcc aggtcggata acttaggtaa accaacctac 300  
 gagaccctaa ccaaaacccc agccaagctt ctctgtgcaag atagccacac tgtggtcncg 360  
 acactttttg cagtcgggtgc ccaacctatc anattagcct gtcgatacaca taccagttga 420  
 cgatggcaaa aatgtctcat tcgcaa 446

<210> 8944  
 <211> 364  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-056-Q1-E1-D8

<400> 8944

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 ccgccgtcgt cgccgccgtc tggaatcgcc tcgccaccgc ctggattcgc cctcgacccc 120  
 gactgcaaac gccgtctgcg tgccgccgcc cgccgctggg ggcagatcaa ggtgcctcag 180  
 actcatcttt caacaacatg gatggcctta gactcccctc aaccattggg aaagcaaaga 240  
 gctacgcata ttcttcotta ggagctctgc gaaagaagat gcctcaatct ggaagccgat 300  
 ctctacacac aagtcgcccc cggtcagctc ctgttgcan a cgcgccaatg gtccccccat 360  
 cttc 364

<210> 8945  
 <211> 357  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-056-Q1-E1-E1

<400>       8945

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ggagcacaag gaaggcatga tggagaagat caaggacaag atcagcggcg acggccacgg   60
cgacggcaag aaggacggcg agcacaagga gaagaaggac aagaagaaga agaaggacaa  120
gaagcacggc gagggccaca aggacgacga cggccacggc agcagcagca gcgacagcga  180
cagcgactga gccagctccg gccgcgtgca gtgcagggga gatgaacgcg tgggttaatt  240
tggagcgtgt ggtagcatat gtatgtaatg cttgacatgt ctcatggatc ttgtaatgta  300
ataaccggct gcactgcatg gtgcttgtaa taataacgtt aaggaatttc cattgggt   357
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<210>       8946

<211>       135

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-056-Q1-E1-E11

<400>       8946

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ggtgcttttt ggttccagtg aatgctttga cttgatgtg gcaactggca accatgtttc  120
ttttgatgtg tgtca                                     135
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<210>       8947

<211>       445

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-056-Q1-E1-E2

<400>       8947

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atcatcagat aaaataggtg taggtagtga tctgaatgta tcgtcaacca gcaccaactc  120
agagctaacc actgattcat agaaacgcct tgctggatcg aagtcgtctt tgaatatttc  180
atcagatgta ttcagctcag ctgcatctga ctgaacaagc attttgaaga catcctctga  240
agggaaatca atgatctgtg cttcttctaa aagaactgag caaggcaaat ctgaaaaggt  300
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gccatcaggc ttgagaggt acaatgctga gtttctctca agtagaagat tatcattgat 360  
tctcacaaga tccatctcta ctgcagcctt aactgttatt ggtttatctg cttgatagtc 420  
tgcacatggg gcatctttgg aaaca 445

<210> 8948  
<211> 119  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-056-Q1-E1-E3  
<400> 8948

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gaaaaatgaa tccggggaag aaaaaaaca gattcttccg tttttaacgg cgtttaacc 119

<210> 8949  
<211> 297  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
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<400> 8949

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atgaagggcc tcatagtctg gctgtggcct aaggaggcca tgcctgggag ctactttggc 120  
ctgntgcggc ggctgggtga tgcgtgctcg tgggttgaag tcatcaagca ctccgcctgt 180  
attgaaggtg cccgtcgggc ccttgcccgc gcaaagggtgc actggggcaa gatggatgcc 240  
cagaagctcg tgacggaccc gccaccagag ggcaaggagc attacacgcc cgagatg 297

<210> 8950  
<211> 401  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-056-Q1-E1-E5  
<400> 8950

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caaccggctt cagtttagcag cagtagcgaa ggaatcactc aggtcagtt aacagcaagg 120

gatcgatcga tcgatcgggt tcagtaacgc gtagcctgca gtgcaatcgc tcgggttcag 180  
taggcaaacg cctcgctcgg gttgtcatat ggatgatacg tctccaacgt atctataatt 240  
ttttatgtat tcatgccatg ttataatat ttctacatga ttttggtatg atttgattag 300  
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<210> 8951  
<211> 416  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-E6

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taacacatca cataaagttt ttcgaatcat ggaaacgcta gcacccaaat cacacaaagc 180  
atggcactca taatctttta tcttaatcct aatagtaggt tcccactcat cataaagttt 240  
tctagggata gaaacttcca attcaagctt ttgttcaaaa gattgcatca tagcatcaac 300  
gatatgttta gtaaaagctt tgttttgatt ataagaatga ggagaattca acctggattg 360  
caacaatgaa atacaatata ttaaagaaca attatcataa ttaaattcct tgaaat 416

<210> 8952  
<211> 417  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-E8

<400> 8952

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tccaaccgag ggaatgagcg cctccgtgaa ggaggataac caaggggaag aatctgacct 180  
tctctcgctt cgaggaatga agaggactgc ctctgaagat ccggaaacca aggcttccaa 240  
acaggagaag aagtctccac cagagggttc tgccttggag ggtgcccttg ccgcacaaag 300

tccgcgcaag gatcagccct ccaatgagct gtaagtaatc aaaaagtact ttaatagtgg 360  
 agatatacta ccttacctct gagggaaaata accgaagcat ttatcttgca gtttgga 417

<210> 8953  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-E9

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 caaaagttct ttgaaaatag tttgtctcct tcaccatgca tatacccgtc cctttttgca 180  
 tagcgtctac tttagcatcc tatctactcc caccggcata accctcatag gaaggtaggg 240  
 tcatgcccaa tgcaagtatc aacaaggaag taacgaaggc aaccaccaa agtggttacc 300  
 acctcatcat gattccaatg caacaataat aaagtgtat atgacatgta taaaagggt 360  
 ttcgtaaaca tgggtcaaaag gggctgcttg cctgttttaa c 401

<210> 8954  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-056-Q1-E1-F1

<400> 8954

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 ggtgtagcac ctcatcttgt actgcacacc atggcgataa tgaagaagaa cacgagctcc 120  
 ctgagcttcg tcgtggccgc cctcatcgtg gtcattggtg ccacccttct cctctcctcg 180  
 tgcgacgccc gcaaagagaa ggataagccc accgcttccc ccgtgtcggg gaagtgttc 240  
 tcgaggtttt tcccaaactg caccgagcag cgatgcaaga agttctgcgt ccagccactc 300  
 cccggagccg tctgcatcga caaaaccac tgttgctgcc ctattgctta gttataagcg 360  
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439

<210> 8955  
<211> 399  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-056-Q1-E1-F10  
  
<400> 8955

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gtggcagcgc agcgtggacc ctgtgttcga ggagttgtta tattgatata tactgatatc 120  
atatataact tcggtggacg ctggacaagg tggacagggg cttcaaattg tatccccata 180  
caaaatcccg tccccaatc tacaagccac ctgaccaggg aaacctactc tccggtctcg 240  
tggctgcgaa taattttgag ctcggaacac tctgtttgtg gcttgccgcc tttctttttt 300  
cggctgtgtg gaccttttac agcttctgat ttttctcgca tctccaggga gccggaacan 360  
acacctgttt tgtaacgatcc ctttttcac ttttcctga 399

<210> 8956  
<211> 403  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-056-Q1-E1-F11  
  
<400> 8956

aggggatgga caacttgctc cgtccctgat gggccgttcg aacgtgcgaa cctggaggaa 60  
caccggttct ccatgacacg ggcaatccgc aactccggat gaagcctgtt ggctggcatt 120  
ggcatggcac gccgcgcta ataaaacgtg atgccattaa atgccctctg cgttcctcct 180  
tgggctgcct catcgacgta acggcatggc tttgtaactt tgcattgcc tccatgaaat 240  
aacctgtaga tatccgcttg tgtggtccgg ttgtttgaga gatgtggcgc gagagaaacg 300  
cggctcttaa tcaaaaattt ctgcctatg cagcgagtca tcaatcaggt taaagcccga 360  
tgagggtttc tagttgaaga tggatagcaa aatctggatg ttc 403

<210> 8957  
<211> 459

<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-F2

<400> 8957

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ccgggtcgac atgattatgt aattatgaac gggctcatgt actccctagc cggattgaaa 60
atcatttatac atgacggacc ctttcgcttc agcccccgga tctgacagtc cggggtgtat 120
ccgaataccc acacagttat gaaaacccgg ggtatgctg gaaacatgt gtaggggtca 180
taagtgttg aacagacaag taccctaacta gttaagttat attacatgga tagtaagaaa 240
catcttccag atagaatagt tccgttaggg gttcctttct ttgggtacgc atgcatcgat 300
gtgcatgtcc gaactgcgaa cagaagcgca gaaaacaaaa catctgggta tttttgttgt 360
tctgaacgag aacatctttt gttcacccgac cgaatattcc cttagaacg ctagctttcg 420
gcttcaccca gtctgaggta cacatccggc tcaaccggc 459
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<210> 8958  
<211> 398  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-F3

<400> 8958

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gggtcgaccg ggataaataa acagtgtact acaatgttat agccatataa tccgggaata 60
acaatgtact gggaatcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaacg ggcgccccaa 120
attgggactt ggccaactg gagagatgaa ggacccatcg tctcctcaaa gccaaggatg 180
ggtcttccca agcatcggag aattcatctg ttatgataag tacctggaag caaacttcaa 240
agcagcagcg gcgaaggctg gccaccctga gtgggaattg cctgacgatg ctggagagta 300
caacgacact cccgagaaaa cccaattctt caaggacaac ggaacatacc tcacagagaa 360
agggaagttt ttcctgtcat ggtactccaa caaactga 398
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<210> 8959  
<211> 432  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-056-Q1-E1-F4

<400> 8959

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tgggctctag gttaataggt tagtcccaaa aatcatataa aatagcatat aaaacatcct 120  
agatggataa tataatagca tggaacaatc aaaaattata gatacgttag agacgtatca 180  
agcatcccca agcttaattc ctgcgcgtcc tcgagtaggt aaatgataaa aacagaattt 240  
ttgatgtgga atgctaccta acataatfff caatgtaatt ttccttattg tggcgtgaat 300  
gttcagatct aaaagattca agataaaagt ttaatatga cataaaaata ataatacttc 360  
aagcatacta accaagcaat tatgtcntat caaaataaca tagccaaaga aagctcatcc 420  
ctacaacatc at 432

<210> 8960

<211> 426

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-F6

<400> 8960

gactgctttc tttgacctgt ctgagtttac caattaaagc ttacccttcg tgtttcttgc 60  
cggtcagtgt tgtcgtttac aagggttggt atgtctatcc tctgctaccc gcctccatta 120  
taaaccctcc actagactaa ctgaaataaa aattattaag catgatccgt ttatcagttg 180  
aactgttaga actaataacc aaaccatgct aacatcaatt ataaaagaaa ataatagtgg 240  
tgatttttgt accaggaaaa aaattacctt ggaggataat tttggttgtc aaaaagttgt 300  
cttgtcgttc aaccaaccat gaagttatgc caatttaaga ggatagaatg gaactaacgc 360  
aaaatgtact cattagattt tgaaaagaac atgatccctt tactgtatta tttagttaat 420  
tatata 426

<210> 8961

<211> 436

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-056-Q1-E1-F9

<400> 8961

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cctgtactat atagaggtga tgatgtgtgt gtttgtgcac cttactgcat atatatatac 120  
acgtacaagg aagggcaaga catttttgct tgggagggga gggagcttgc ttgtgtgttt 180  
gctttgcgtt tgttgctgtt tatacctagg gtcgggctcg gtcggatgtt ggttcaattg 240  
cacatgtttg gctggatgaa tcgtgcttat aaacattctt tataccttgt attgtacaag 300  
ttagtgtcag tcggtcgatc actttcagcg gatattggac aatttctgag ctttttctcc 360  
atgtattggc atttcttttc tgttttcctt ctttttcttt ctttctttct ttctcctgn 420  
tgtacacgtg ctcttc 436

<210> 8962

<211> 408

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-G10

<400> 8962

cggttctct tacttataca aatcattcat gaatttcttg taggatcaaa atggccatgg 60  
caaaccttca aagaatttaa tttccaaaac caaagggtgaa ccaatacaag gatgaaggac 120  
aaataattca aatcaagata ttcaattcat tcaaacaatt ttctcatagg atataagtga 180  
agcacaagag taaatgacaa actactccaa aaagatataa gtgaagatca agcgagtagt 240  
taagtaaagg ggtagctaatt tgaggactct ctcttattta aaaactttca aatctaagta 300  
ttttattaaa acagcaagca aaatgaaaac aaaatgacat tccaaggata gcacacatca 360  
tgtgaagaag cagaacttag gctcaaccga ggctaaccga taattttt 408

<210> 8963

<211> 386

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-G12

<400> 8963

acgggcaggt gcaccccgga gacgcgcca accccaacta cttcgaccg cgatacctgc 60

tgtcaatgta cggcaacccc ctggggggacc tgctcaaggg ggcctccctc tggacaaggg 120  
 ccggcaagga caaccgcaag ggccccgtct ccttgctcta ccgcgcctcc ggcttgctcg 180  
 tccccggcct cgctccccc agcccgcgcg actacgtcaa cgccgtccgc ctcggcgta 240  
 tcgcgccccaa gtcactcctc taaaagtcta actcagaccc actgtgtgtg tacgaccaca 300  
 agagagagaa ttggtgatga ataagttggt gtttcggttg tgcgtgtcg tgcgtgtcg 360  
 tatcgtgtgt gtgctatatt aagcct 386

<210> 8964  
 <211> 240  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-056-Q1-E1-G2  
 <400> 8964

cccggtcga cgggcgtaca gagtataccg gagatcgggg tgatatagat tgttaggtcc 60  
 gcagtttgcc acttggtaat gtcctcccc taaatagcgc tgcattgcca tgtgtgcctt 120  
 gctctcagca gggaagttga gttgttgat gttgtgtagc agaacgatgc tttctgcctg 180  
 tggaagtaaa acataaagat tgcctatgtg tcatgactca aatggtattg tcacctactc 240

<210> 8965  
 <211> 280  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-056-Q1-E1-G4

<400> 8965  
 gaagaagaat caaccgagaa cgtcaaggtc atctacgcc gcgccaacca ttacccaag 60  
 gattacaatg ccagaacaa ggatttggtt caccttaacc ttgaggcccg gatgaagggt 120  
 gggttctatg tcagtctga ggctaagctg ctgtttgttg tcagaatcag aggtatcaat 180  
 gccatgcacc caaagaccaa gaagatcttg cagctgttgc gtttgagaca gatattcaat 240  
 ggagtgttcc tgaangttaa caaggccacc atcaacatgc 280

<210> 8966



<211> 430  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-G5

<400> 8966

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aattcgcggg tgcacgggga cgaccacccc cttggcgggc gccttctcag tcttctttgc 60
cgggcggggt cttccttctt tggtttctt taatccacct tctgcaggct cgacggcgag 120
cttggcttcg acttctgtg ctaagcctcg cccctcatcc gtatcaaccg cgatcgtgac 180
ctcctcgtec atggagtcgc cgttgtcacg cacctttgca tcagggtgctt gttcctccgc 240
ctcgggtgaag ggcattgtctt gggatgatgc acggttcttc tcctcctttg agcaattggt 300
attgtcatga acgggtgctg ccatgacctg ctgaacattc gatcgaaaag tgagacatca 360
aagtgactaa catccgacat caaaccaaca atctaccacg tactaagtcc aacagcccat 420
gttcatatgc 430
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<210> 8967  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-056-Q1-E1-G9

<400> 8967

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tagccgtcaa aaattctagg gtcgacgggg gaaaagaggg agcaaagcaa ccgtgagtac 60
tcatccaaag tactcgcaag caaggatcta cactacatat gcatgggtat atgtgtaaag 120
aggcaatatc ggtggactga actgcagaat gccagaataa tagggggata gctagtccta 180
tcgaagacta cgcttctggc agcctccgtc ttgcagcata tagaagagag tagattgaag 240
tcctccaagt agcatcgcat agcataatcc taccgggga tccttccttc gttgccctat 300
ggaaaagcga tcaccgggtt gtctgtggaa cttgtctggg tgtgttttat taagtatccg 360
gttctagttg tcataaggtc aagggtacaac tctgggtcgt ccttttaccg anggacacaa 420
ctattcgaat agataaactt ccctgcaaag gtgc 454
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<210> 8968  
 <211> 287

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-056-Q1-E1-H10  
  
 <400> 8968  
  
 catggcgaaa gccgggataa gatggccaag atggccatag aattaaaagc cgccgtttga 60  
 ccgttgccgg gttcttgga aaggaaaacc taaccaaagc atcggacttg agaaagctgt 120  
 tgcgacgagg aaagacatcc gctctgctat gagggcgaag aaggaggagc tgcgggaagc 180  
 cggggatatg gtagctggga aatcgtttat gttgctggagg aagttcggag attcacggta 240  
 tgccactctg gatcggctgt ggagttcgga gaatgtgtat atggatt 287

<210> 8969  
 <211> 383  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-056-Q1-E1-H11

<400> 8969  
  
 tatcaaatct anaaaaaatt ttaattcgga tagtccaaac caaaattacc cccggaaggc 60  
 cggaaccaa tacaaccaa attggtgggt ttttaaaca tcccggaaaa tcaaaccgcc 120  
 acaaaaagg gccaatccc caagccaagg aaatgacgaa cccaccaa acgaacaccg 180  
 aagtcaaaag actttccac aagaagtcaa aacagtaa ac tcaacttcac tgatagtacg 240  
 gaaaaccaac acggcactcg ctaagacaag tgcgcacgg tccaccccag cggaacaccg 300  
 atattggatg tcaaaacaa tcaacttcga ccatctggat acaacanaca gaccgtcaag 360  
 taaaaaaaaa aagcgccgc tct 383

<210> 8970  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-056-Q1-E1-H12

<400> 8970  
  
 tttagctcgg atatgtcaaa tccacagtac ctccggaagg cctgcaaacc ataccaacca 60

aaattgttgg gtttttaaac agtccggcag actcaaggcc ggacataagg ggctcgatgc 120  
 gccaaagcgag gacaatgacg aacccccacca gcagagcacc ggagtcataa agactttccc 180  
 acaacaagtc aaaacagtaa actcccttca tgtgaggcta tgggaaacta atatggaact 240  
 cgcatatgag caagtgtctc attgtctaca ccatgggatc atcgatattg catctaaaca 300  
 tgaacaatth tccaacaacg ggcagactg caatgatttt actataaatt ctcttgaggt 360  
 ccactgtgag atcaatacgc aaaacctcaa ccttggg 397

<210> 8971  
 <211> 172  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-056-Q1-E1-H2

<400> 8971  
 gaaccacaag aaagacggcg agcacaataa ggacggggag cacaaggagg gcatgatgga 60  
 aaaaatcaag gacaatatca gcggcgacgg ccacggcgac ggcaaaaagg acggcgacca 120  
 aaaaaaaaaa aaaccatcaa aaccaaatt taaaaaaaaa aaccgcccc cc 172

<210> 8972  
 <211> 400  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-056-Q1-E1-H3

<400> 8972  
 cgggtcgacg gcggatcgag aaaaagacgt acgactactt cctctacgtt gtgtcaacgc 60  
 ttccgttgca accaacaagg gtacttaaat tatgcccttc cccccgttgc aaggcaccac 120  
 aatgatcttg cttgtgcata ggaaattttt tgaaattaca actttcccaa acattgtcct 180  
 gatccagtca ggcagccgga ccatcgggtt ttggccatga gctgggacca ctgggaagcg 240  
 gcccgccacg cggaccatga gaccatgcc aaggccgtga tcaactattt ctgggtgagc 300  
 tctcttcaga agcacaagtc cattctagtt tcatgaatga tttactcat ggcttcttcc 360  
 attcttgttt catgcatgat ttagaaaatt ctatcgggtt 400

<210> 8973

<211> 288  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-056-Q1-E1-H4  
  
 <400> 8973  
  
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 gaaagacggc cctgcccctg atgtttggca ggaaaggggc gtgtgttagc tgatgtaatg 120  
 ttacacogta gaatcatcgt tcgtgacgat aataatgac cgaccataac tcctctaata 180  
 tcattgttct gttgtcattg tgtagtttac tctgtatctg aactttgttt tactcagcga 240  
 aaccgtactg ctatgatgaa tgttttcaaa aaaaaaaaaat ttttgggt 288

<210> 8974  
 <211> 356  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-057-Q1-E1-A1  
  
 <400> 8974  
  
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 agaggagaaa tgccggcagc tggaattttg gacttgaaaa tgagcaaata ttagagacct 120  
 attctgcaca actccaaaag tcctgaaact tcacggagat tagttttgga atatattaaa 180  
 aatactgggc gaagaaagca ccagatgggg accaccagtc agccacgagg gtgaagagca 240  
 cgccctagcc cctggggcgc cccctacct cgtgggcccc ctggcagtc cgcactccca 300  
 tcttctgcta tatgggtgtct ttttccctgn aaaaaatcat agagaagctt ttggga 356

<210> 8975  
 <211> 447  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-057-Q1-E1-A10  
  
 <400> 8975  
  
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 tttatgtgca tgtacacatc acacagacgg tcagcaagaa cactcagaat gcacccaca 120

aacatagtat tggcttctctg gaattttctc cgatcttcgt cggtcattcc ctctggagca 180  
 tcaacactag cgtggaaaac tttcagagca gtaagccaga gtgttgctctt cacctgccac 240  
 ctcttaaagt gcacaccgat aaacttatcc ggcattcagt catcagcgaa tccagccata 300  
 gttaactcag gaaattgcct agaattaggt ttttggattg ttggaatata aggcaagttc 360  
 atgattaatt ccagtaaata attcatgact agaagagata ctagcatgca ataattctagc 420  
 aaactagaag accagcagga catgcat 447

<210> 8976  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-057-Q1-E1-A11  
 <400> 8976

cgggccgacg gatgactcaa acgatagacg gcggcttcat ccacgctccg gtcccttgag 60  
 tcgagtcgaa agcagtgatg ctgtgtctag ttctgaaaca tcgattgtct catgttgtaa 120  
 ttaaacttta atgaacttgt agtatgtctc tttggtttcg agagtcgttc aacttagatg 180  
 taatcgatgc tattaatgtc ttgcttttct cttccgatcg ttctgttgca tacttatata 240  
 ttgcttatgt attgtctgtg aattgggtact aacgtttcgt ttggctactg catagcgatg 300  
 ccgtgggatg tcgtgtacaa gggtaaggct cccggagtct acgacgactg ggaggagtgt 360  
 cggagacagg ttcaccgatt cagcggtaac aattacaaag ggtacgccac t 411

<210> 8977  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-057-Q1-E1-A12  
 <400> 8977

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 cttcatcttt ctattcctgg agaactatgg tgtgagaaaa ttggaagcgt ttttcggcgt 120  
 cttgattgca accatggcta tatcatttgc gatcatgttt ggtgaaacga agcctagtgg 180  
 aaaggagctt ctgatcggtg attctctgtc tgatatgttg gcagatgctt ttgtttctga 240

tgcactcttg agacgtagaa gaattttattc agtatttttc ataattaggt ttggtgggttc 300  
 caaagctaag ctcaaagacc atcaaacagg cggttggaat tgtgggctgc atcatcatgc 360  
 cccataatgt tttcttgcac tcagcgctag tgcagtcag gaagattgac acaaaaaaga 420  
 aatcccg 427

<210> 8978  
 <211> 216  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-A3

<400> 8978

acggggaagt ggaagaccta aggtttatta atctgtgaga ggtgtaggat gaagatggtc 60  
 tctctcaaac gaacctgcaa tcaaatacaa gaaatctctt gtgtcccca cacacctaata 120  
 acaatggcaa attgtacagg tgcactagtt cggcgaagag atgggtgataa aagtgtata 180  
 tggatggtag aaatacattt ttataatctg aataaa 216

<210> 8979  
 <211> 322  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-A4

<400> 8979

gggtccacgg gccatgataa aataagctcg agcacacatc aaatcctaata cacatccaca 60  
 taagatgcat gacaccaagc taacagggtta tttccagaga catgtctgtg atatactcgc 120  
 acgcaacgtc caggatcgat cattctgtga tatgaacatg cattgccaca tagctttgca 180  
 tgatggtagc atatctatga tgatgtttcc agagcttgtc cgtttgtgac gtcgctgtga 240  
 tgcaagttca atgtccaacg cggtagactg ccggaggcat tcatataaac tcaggtcgtt 300  
 gttcaagttt cgagctgcaa ta 322

<210> 8980  
 <211> 379  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-A5

<400> 8980

ggaagcagca gatcgccagc gtggcctaca acggcagcct tggacaagcc aacaatccct 60  
tcgaaacgaa cgaccctttc gccatgtcca acagctttgc gcccccttcc aacatccggc 120  
tggcaatggg gaccagcag cagcaatact tccaggctca acaacatcag cagcaatact 180  
actaccagcc tcagctccaa tactaccagc cccagctgca gcagcagcat cagcagcagt 240  
atttccaggc tcagcagcat cagcaccagt atttccagca gcagccccag tattgtgtgc 300  
atccggccgg aattacaat ccgtttggg accctttcac tgaccttgta actctggctg 360  
ctccttcaaa acaaggcga 379

<210> 8981

<211> 315

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-A7

<400> 8981

gggtcgacgg gggatttaat cttactggg tatgactatg taaggctctg tgtgaataat 60  
taataaagtg gttgtatgca tagtccagat gcagaggccg ggttcctcct ttttcaaaaa 120  
aaagaaagaa taatagacag gcaccagcaa ggtcaagtga aagcatgcat ctgcagcagg 180  
tgatcagcta agacaactat ttgcgtacca atcaatgtaa aaaatacaac ctttaatttg 240  
ttcattgtag caatgatacg gtgctagttt aaagtaattg taccagaaaa ttagacaaaa 300  
gacatcccaa gtttt 315

<210> 8982

<211> 273

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-B1

<400> 8982

gacgggctaa cccaacttct ggcaacagga gtgctacgta ccattagtta gttgagagat 60  
gtactatccg accgaggcat tgtatttgta acctaaagag tacaggggga agtggacaaa 120

cgcgcatgat ttggcattcg tcggttaagtc attggaaatg ctcttatgtg agatactatg 180  
gaggcctgct tgatgaccaa cacaaaagtg atcgccctcca accttcttct ggttggttga 240  
ttaacacaca agaaaaattc tcattgaaac aaa 273

<210> 8983  
<211> 405  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-057-Q1-E1-B12  
<400> 8983

ccgggtcgac agtaggcttc atataaatgc aataaatcca ttagctgatg cgtcctatca 60  
ttagctctta tcaataattc tattaaattt tgaagctgac ctgtccgccc gttggctttg 120  
gttgccacaa caacggattg cttgggatac taataggatg gcttgggatt tgggagtagc 180  
attcccaaac gtgttactat catatttggc ttgcagtggg tgtgcaggag gaagatgttg 240  
cttgattgga gtccctcgga gcctagcagt gctgctcage cctatgcatt ccattggctg 300  
cctcggtagg taattgggat cctcacgcta ccaatttggg catccctagg aaacatcaag 360  
gagatgatga gactgcatct tgagaagaag cattattttac aactc 405

<210> 8984  
<211> 444  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-057-Q1-E1-B2  
<400> 8984

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tcatctgagt tgatcataag aggtaatgac aaaggtagt atcttccatc tctacatgag 120  
aatgatgaat gccttgtaaa tttgaatgca ccatctgatg agctaccac tactttgatc 180  
acaccaccta ttttagagga ctacgttgat aatttgactt tgccatgtga tcaaacaact 240  
gaaataccaa caattttgag tgcacccatt gaattaacta ttgatgcaaa agaaccaatg 300  
tttaatcatt ttgatatgac ctctaattt ggtgatgatt ctgtgttgaa tgacttattg 360  
catgtttgct tatttaagca tggtgtagca tgtaaatttg atgcaagtaa ggtttattca 420



ccaatggttg gatggttta tgat

444

<210> 8985  
<211> 438  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-057-Q1-E1-B3  
  
<400> 8985

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accttttggg agaatccac ttgattggaa tttattagaa tactatatgt gcttcactta 120  
tatcttttga gctagatagt ttttgctcta gtgcttcact tatactcttt agagcacggc 180  
ggtggcttaa ttttgtagaa attgctagtc tctcactt cacttatatt attttgacag 240  
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ccaagtggg tataataaaa actatcatag gaagtgaatt ggatgctatg atcaatttga 360  
tacttgataa ttgttctgag atatggaggt agtgatatta aagtcatgct agttgggtga 420  
ttatgaattt aaagaatg 438

<210> 8986  
<211> 453  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-057-Q1-E1-B4  
  
<400> 8986

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taatataaga atgtttttga caatggtgta gtgccaaaaa cgctcttatg ggacacatgg 180  
agtactagta tttattgcat tttccaagga gtgacctctt ccaatgaaat ggtgtggcta 240  
agtttgctta atttaattag ctatagactc aaaattgtct tttcacctag gtacacgcgc 300  
ttagcactgt ttcttcttg ggtcaccaa ctagtctctc tcttcttgat taacttgcca 360  
cgtcagactt tatgcctatg tggcaagctt aagcacctgt aggagcaagt aaaaataagt 420  
acaatagtgc gctttacatg gcatttttgc ata 453

<210> 8987  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-B6

<400> 8987

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tggcacactt tttgagaagc aaacggattc tgtaaactgt gaaacacggg ttgcgtcgag 120
gcttccagca aacgaaatat tgtcgaaaat tgaagcagca gcaggacca tgggcttcaa 180
tgtacagaag cgcaactaca agctcaagtt gcaaggagag aatcctggaa ggaaaggcca 240
gctggcaatt gcaacagagg tttttgaagt gacacctca ctctacatgg tggagctccg 300
caagtccaat ggcgataccc tcgaattcca caagttttta ccatagtatc tcgaatggcc 360
tgaaggacgt catgtgg 377
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<210> 8988  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-B8

<400> 8988

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gattcaaac agggccgtgg ctcatgccgt cattcccgtc ctgatccgtg gctcgtttag 120
acctcagtag ccgagtaa at ggagggatgg gttgctgggc agagttctct cctacctccg 180
gctcctggtt ttttctatta tcgagtgagg ctagatgggc ggcggagctt ctattcgaag 240
gaaacaaagg ctagcgcaga agatggaatt tctgatgcaa tcgattaaaa gaaccaccgt 300
gctggaggac gttaacgatg gcaacgtact catggagcca ctacactgcc agtggtcgca 360
accgttgtag acccgctgcc gcccatggcg gcagtgagtg cggaaggcca gatctgtgag 420
gctgatggca tgggtcgatac tgaaatcgat 450
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<210> 8989  
 <211> 389

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-057-Q1-E1-B9  
  
 <400> 8989  
  
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 ttctgttttt cgtgtgttgt ttgcttattt tgatgcatct atggctagta ccggtaggta 120  
 tgaaccatag agaagggtgga atacagtagg tttaacacca atataaataa agaatgagtt 180  
 cattacagta ccttatgtgg tggtttttct ttcttgcaact aacggagctt atgagatttc 240  
 ctgttgagtt ttgtgttgtg aagttttcaa gttttgggta aagatttgat ggactataga 300  
 ataaggagtg gaaagagcct aagcttgggg atgcccattg caccccaaga tattcaagga 360  
 taaccaaag cctaagcttg gggaatgcc 389

<210> 8990  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-057-Q1-E1-C1  
  
 <400> 8990  
  
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 atgccgtgaa ataggattag gaatttatgg ctatttattt atacatatcc agatattatg 120  
 gtttgatttt taagcacact cgtctatgta cagaccaatc ttgaagaaaa taatggcaca 180  
 aacatatgta ggtcattcaa aatcaattgt catgccctgg ctaggaatta ttagcacaaa 240  
 cactaatcct agtcggatta ctagcagaaa tcatttgac agatgaaaca actaatcact 300  
 tatcacctgt accattcaaa caatcaatac actacacgga tctaacaaaa cttactcaga 360  
 tttcatggat tgggagaaca taaccatagg atttctattc caaaaaaggg aagtacgagt 420  
 aaccacggaa accccatgat ctatttga 448

<210> 8991  
 <211> 252  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations

<223> Clone ID: LIB104-057-Q1-E1-C10

<400> 8991

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caaatttccc tcaagtggat gacctaaggt ttatcaatcc gtgggaggcg tatgatgaag 180  
atggtctctc tcaagcaacc ctgcaaccaa ataacaaaga gtctcttgtg tncccaacac 240  
atccaatagc at 252

<210> 8992

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-C11

<400> 8992

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ccactcgacg cggtcgaacc gcctgcgtgg aaagggtgag acgcgggcgg taatggccgg 120  
cgcatcatta cgacttctga ttttccatat ttttcatagg gaacagggga gctttggacc 180  
ttgtgtctag actacaatct aaccatcaat agccagcagc ttcattccgg taacttgaa 240  
ggtactcctg gaccatgac catcccttgg gaaaacgttt gccgaatcaa aatgtggctc 300  
ctctgatttg cggcaattag aggccacctc aaggtagtga accttctgct gggttgggtg 360  
aactacaaa ggccaacgga acaacaattg cacataccct ttattttcct ggtacaggca 420  
atctccagac atgac 435

<210> 8993

<211> 267

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-C12

<400> 8993

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ccgggactcc gaacaacatt tggtagacaa catacataac tcatataata ttatatcgct 120

aacgaacgtt aagcgtgagg accctacggg ttccagaact atgtatacat gaccgagaca 180  
cctcccaata gcggaacctg gatgcccaca ttggtccca catattctat gaagatcttt 240  
attggtcgaa ccttatgaca acatatg 267

<210> 8994  
<211> 451  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-057-Q1-E1-C2

<400> 8994

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atgtccaatg gctacatcnc gtgctctgtc attgagtaaa tgcactattc acgtgccatc 120  
gaggagaaaa aatattgagt agtactaggt gccatcgaag tgcacgactc acttacgcat 180  
tgcatatccc cattttcttg gcatgacacg ccaccttgat gctagatgtc ccgctgtca 240  
tggtggcata tagtatgatt ttgtaaaatc gaggcataata gatgtccgc gtgtcggcaa 300  
aaggatgaac aaagctcatg tcttaaacga aagagtggaa gaacatagat tcccgacggc 360  
cgagaaagag caagaaacct cggggtggag cctctgcact cataatattt tatattattc 420  
agcgatataa aatcaaccaa atctctccac g 451

<210> 8995  
<211> 277  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-C3

<400> 8995

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aaagtataaa actgaaaaaa taactgtagt tcagccgatt taaaggatgt aagggtattt 180  
acctttgcat gccacgtaat aactcttcta aagtgtcatc taatttcagt tcatgggcgt 240  
tctttttaca ggttattaac tgggaaaccc ctggctt 277

<210> 8996  
 <211> 256  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-057-Q1-E1-C6  
  
 <400> 8996  
  
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 tcttaaagta ttagatgtta gagagtcttc acatagttgc ataattattc gaaactcatt 120  
 gatgctcact tatatctggt cggagtatctt agttatctgc tccactgcgt gacttacaac 180  
 tttctagctc acggtggcgg ttttattttg aatgatctac atatctcgcg tgattaactt 240  
 atgatattgt gagagt 256

<210> 8997  
 <211> 78  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-057-Q1-E1-C7  
  
 <400> 8997  
  
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 tgggcagctc caagtgtt 78

<210> 8998  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
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 <400> 8998  
  
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 aaaacccgcc ttggacggcc caatggggca cccaagggg ttgcaaggaa ccgattttgt 120  
 actgatcagc ttctcaagta aatagcagaa agatcaccct cccttaagag cctcagcctt 180  
 gactattgca atgtcaccaa cgaagcattc actgagctga taatcaagct tcctctgctc 240  
 gaagaacttc tcatttcctt atgtccattt gttgatgggt acgcatatga ggtcaccagc 300

agagcatgtg cgcagctgaa gcgtctcatg ttgccgcaag ggtcgtatgg gggataaga 360  
gatggggcac ttggnatcga gatgatgcac gagctgcgat accttactct cgtcaatagt 420  
aatatcacga caga 434

<210> 8999  
<211> 418  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-057-Q1-E1-D10  
<400> 8999

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gagtgatggc agctctgagg atgccagaag aaagcggcaa cgccatggaa ggaaatctaa 120  
ggccacatct caaatctctg ctgaagatca cacagcagta gctgctctga aggatgccac 180  
ttcaactcag gaaaagattg gaacaccaag gagtctggca caagaagaca aatctccact 240  
ggagaatggc gagatgcgca caaatgggtg tactgactcc aaatctgaaa ggaaggccgg 300  
tatcatgcct gttctaactg gcaaccgaag caaatctagg agccagagca cgagtgctaa 360  
tcaactccatg agcaagagca tgagtgtgtaag tcccagaagc ccaatcaaaa ggtcaaac 418

<210> 9000  
<211> 425  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-057-Q1-E1-D11  
<400> 9000

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cttggcacgc atcgtctcca tatatttgat tactcgagcc gctgcaatgt ccaactgcac 120  
ttctgtagaa ttgtatgaat agccagacaa tgacattgct tcataatcac gtcgctgatg 180  
ttgtgtgctc ggacgaacct ttaatgtgac tgctaattct tccccaaact tgtagcagaa 240  
gaacatcagt ggtgggagct gcaacttaat gaacattaca tcaagcatga acttgtctgt 300  
aatgtcaacg acccccatgc cagtttctgt cgatatagag aacgtgcaa tgtctgaaaa 360  
tggttgtagt tgcactcatg cactgcaaag catatgtaag tggcagaaat gatgaattag 420

taact 425

<210> 9001  
<211> 433  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-057-Q1-E1-D12  
  
<400> 9001

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gaggaggtaa tgttaattgg tttgcttggg aagtgcctat attaattggg agtcaaagtt 120  
aaccggcatt tagtaaagca atgtttagg actgggaaat tttctttgat ctaatgtgct 180  
aaagccagtt cgggtttgtg ctaaactttt gattattctt tcagtgaat gctgaacttt 240  
tgatggtaaa tgtttttaa ttgggtcaagc acataagaag gcaaactcaa gtaatgctat 300  
ttgattattt tgtgaaactt tgcagctagg ccaactggcc aagccataga caaagaagtg 360  
caagtatatc aggagatcta ngangacata cctctcgact ttcttcagca caattaccca 420  
cgagagagaa aaa 433

<210> 9002  
<211> 431  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-057-Q1-E1-D2  
  
<400> 9002

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ttgagggcat ctttctgaag cccagcatgg ttacccttgg tgctgagcac aaggagaagg 120  
cttctccaga agccattgag aagaacaccc tcacaatgct gaggaggaga gtaccacctg 180  
ctgtccctgg aatcatgttc ctttctggcg ggcagtccga actggaggcg acgatgaacc 240  
tgaacgcgat gaaccagtcc gccaacccgt ggcacgtgtc cttctcgtag gcccgggccc 300  
tccagaactc ggtgctgaag acatggcagg ggcagcccga gaacatcgag gcggcgcaga 360  
agggcctgct ggtccgcgcc aaggccaact cgttggcgca gctcggcagc tacacgggag 420  
agggcgagag c 431



<210> 9003  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-057-Q1-E1-D3  
  
 <400> 9003

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ggttcatggg agtcctaaag aaatatgtcc ttaaccacgc taggccagaa ggaagcatct  120
ccatgggcca tcaaacagag gatgttatcg ggttttgtgt tgacttcatt cctggcctta  180
acaagattgg tctcccaaaa tcgcggtatg aggggagact gactggaaaa ggcactcttg  240
gaagagactc aataatatgc agggactgat attctcggtc tcaagcacac tacatagttc  300
tacagaactc taccttgggtg accccgtatg tcaatgaaca caagaacagt ctgcgctcca  360
aacacccgga gcaatgcgac gactggatta catgtgaaca catcaggact ttcagcagtt  420
ggttggaaac acgtctcaga ggtgacaaca ctgt                                     454
  
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<210> 9004  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-057-Q1-E1-D4  
  
 <400> 9004

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gcaccaactt caaacaattt caaattccgg tccccaaaac gaacaaaaaa ggcgggttttc  120
aagccaacca ataactgtcc ttggccctcc aaaatttgcc caacgggtgt ggtaataatc  180
tttttaagtt gatcctggca ttccctttga gtttacaatg tacactaggg tggctatgca  240
gccactcaat tcactttttg taaccctgta agatagttag caactatggg ttcggttcac  300
ggagtaccga tgagcagccc gccctgtttc ttgagtcggc aataagagtg cacaatggta  360
ctactgatac aatttgggat atatatggcc taagcctcga ttata                               405
  
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<210> 9005

<211> 269  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-057-Q1-E1-D6  
  
 <400> 9005  
  
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 aggttcaagt cctaaacttg acatgggtgc tctcgtagaa ggtgtgtgcg cgtgttgtga 120  
 gcgtctgcgt ctgcattgtg tttctaaaga aaaaaaaaaa aaaaaaaaaa aaaagaaaaa 180  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaata aaaaaaaaaa aaaataaaat 240  
 aaaaaacaaa aaaaaactta aacacaaaa 269

<210> 9006  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-057-Q1-E1-D7  
  
 <400> 9006  
  
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 agggctgctc agcgtgctat cttggagatg gatggcaagc aaataggtaa tcgtgctgtg 180  
 agagtaaagtg aagtgcgtac aagaggcaac acccgtgatt ttgggcgtga tggcttccga 240  
 cgagatcctg taagagatgg aagggatgta tactgggacc gaagggatan ggagaggagt 300  
 tatgatcgcc accgggatag agattcctac catgacaggg atagtgatag acctcgtgac 360  
 catgatagag acagatatga tgaacgtggg ggatttgacc atgacatgga ctattccatg 420  
 gatcgaga 428

<210> 9007  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-057-Q1-E1-D8  
  
 <400> 9007

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 ttcattctct tctgcaacgc caaccggggg ctcatgaagg acgtcgccaa ggtcttctga 120  
 atcagttcat ttcacctcag ccgtccgttc caggagccga tccatctacg tacggcttcg 180  
 tatatcaatt tcatgcaact acctactccg gtcccgatcc agcctcagct tcacctgagg 240  
 ccggccctaa atttgtttga tcaattcttt tgctactagt agtaactagt gatgatcact 300  
 gttgcatcat ttatttattt attttatata tcatcacaag tttcctgtga ttcttttctt 360  
 tctatacctt tttgtcgatc gtcggctcca gctcgatcaa acgatccatg ctgctaattg 420

<210> 9008  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-057-Q1-E1-E1  
 <400> 9008

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 caggaaacaa caagcaacat gtaggtgggc cggcccaggc ggaggactgc ctttgcaag 120  
 ccccgccatt ctgccacata ggagatgcc acgagtgtc ctagtcggcg ctttatctgg 180  
 cgcccactag cctgcaggaa tgggttgccc catttgcaatt gggtttgtga gtcaacagat 240  
 gaccagtcaa ccattgactt ttgaaaaata tgttttttta ttctaaaaca acaaagaaac 300  
 tatgatttta aaaatgttca caagcttcaa aaaagtttac gaatttgaaa aaaaagtcca 360  
 tcaggtttgg gaaaatttta tcgaattttc aaaaacgtac ttcaattttg aaacaaaagt 420  
 tcacaaaacta aa 432

<210> 9009  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-057-Q1-E1-E11  
 <400> 9009

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cctactggat tgataccttg gttctcaaaa actgagggaa atacttacgc tactattgct 120  
gcatcatcct ttctctttca aggaaaacca acgcaagctc aagatggtgc aagaaggatt 180  
tatggcacccg ttgtctggga ggtctttgct caagtcaaga cataccaagt acccatcaca 240  
aactcatctc cctcgcatctt acattatttg ccatttgctt ctcgtttctc tgtccccac 300  
ttcacccttg cegttttatt cgccctctct ttcccgttcg tccttttggt tgctagtgtt 360  
gccatgtgcc ttctatatga ttgcatcttt gcttgctgaa aatctattga aatggattca 420  
cttanagtgt tc 432

<210> 9010  
<211> 444  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-E2

<400> 9010

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cgtctggctc tggccgcggt gatcttggga tgttctttgc tatcattgct ccaatctgtt 180  
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gcgaagggtg caggggccag atcaggagga gtgacgcgct aagttacatt aaacttctcc 300  
gtgccgttta cataccaacc catggggcta gcgacatgct tgaaatgcat ggggagtctg 360  
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ttggaattct aaccacactg gtga 444

<210> 9011  
<211> 133  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-E7

<400> 9011

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gtggcgtgct ggc

133

<210> 9012

<211> 328

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-E8

<400> 9012

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aaacagccac catacctatc tagcatggca tttccatagc cattccaaga tatattgccca 120

tgcaattttc caccgttcca tttattatga cacgcttcat cattgtcata ttgcgtgcat 180

gatcatgtac ttgacattgt atttgtggca aagccaccat tcataattct ttcataacttg 240

tcactcatga gtcattgcat atcccggtag accgtcggag gcattcatat agagtcatat 300

cttgtttctag tatcgagttg taatattg 328

<210> 9013

<211> 437

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-057-Q1-E1-F1

<400> 9013

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aaggcctcaa aggcaaaagg cctcttggac aacaactttg tctcccttat ttgacgaagg 180

tcctcgtcgg ctctctcgac aagttcaacg tcatcaagaa gctcccgaac gaccttgacg 240

tacgcctcta gcccatgcgc ccatgctctg tgatgcctgc caccctcaac ggctctctatg 300

gtgacaacct ctctgacgca ctggtggccc tgcgattgcc cgtcgtcgcg ccggagaatg 360

tcaacctcga ngtcgcgctc aacgcgcagc gcctggcgca gcaagacaca atcgacataa 420

tcacccacat ctacgcg 437

<210> 9014

<211> 425

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-057-Q1-E1-F10  
  
 <400> 9014  
  
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 tttgaagtgt attgtgacgc atcccggaag gtcctcggat gcgtattaat gcaagaaggc 120  
 aaagtagtcg catacgcttc cagccaacta cgaaagcatg aagaaaatta tctactgat 180  
 gacttggagt tggcagcagt cattcatgca ctcaaagagt ggaggaactt tttgctcgga 240  
 aattggtgtg aaatatatac ggaccataaa agcctcaa atattttcac ataaccagaa 300  
 ctcaatttac gacaatggcg ctagttggaa ttagtgaaag attatgatgt tgacattcac 360  
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 aacga 425

<210> 9015  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-057-Q1-E1-F11  
  
 <400> 9015  
  
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 gacgactccg acgaccactc cagcgacgac tccgacgacg acggataact agttagtcat 120  
 ctatacccat ttatgtgtca aatagatcat agggtttctc tggttactcc tgccctcccc 180  
 tttttgggat ataaatccta tggttatggt ctctaatacc atgaaatctg agtaagtttc 240  
 gctagatccg tgtagtgtat tgactgtttg aatggatatag gtgataagtg attagttggt 300  
 tcactgtgac aaatcatttc tgctagtaat ccgactaggg ttagtgttcg tgctaataat 360  
 tctagccag ggcttgacaa ttgattttca atgacctaca tatgtttgtg ccattatttt 420  
 cttca 425

<210> 9016  
 <211> 379  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-F12

<400> 9016

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caatcctgct aagccaggca ggtggatcga tgtaaatacg ctccgatggt gctcagcagc 120  
tggatctgtg gaaaataaat ggtctggact tcgattatat tgaggaagac aggttaaaga 180  
tatacgagtt gcttgcgtgt aacatacaag gcgctttact tgattcacca atcgactgga 240  
aaaggtagct tggtttaaat atgtggatc agttgtcacc agatacatca cttgatatta 300  
tcattcggtg ttatcaccaa ctacttggtg agggcaaagt tccaaatcct gttcctgtat 360  
acatcgatga aggacctct 379

<210> 9017

<211> 272

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-F2

<400> 9017

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cctggtttct ttttccctgt atgtatgatg ttgatgatgt aaaggctgat tggtttgcag 120  
ccaatttttg gcatgccaat tggtggcaag cctatttttg gcaaagctgg aagttgccaa 180  
catttggtat gtttggtat caattggttg gttgccagtt tttcgccaat atttagcaaa 240  
aaaaacatgt gtctatcaat tggtttggtta cc 272

<210> 9018

<211> 458

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-F4

<400> 9018

gggtccaggc gcataaatga gctcatttca tgcgatcgaa cacgacgcc cggccggccg 60  
gccatcgatc gtgtcgtcac tcccggccgt aacacggcga ggaacgactc cggcgaccgg 120  
tcatttgcaa gtttccgctc gctcgtaccg ccgacgtgca ggggacaggg aggactcatg 180

aagctgaagg gtttggatta gtgttcacgc tactactcca caatgagctt ccccatgaga 240  
agccaatgat ccctattgaa gcatctaaac gatttttgtc tagctatgcg aaatcattac 300  
tcatgatcag tcagtgcccg tatggagata tcatcaaggg gaagctacaa aaatatattg 360  
gaagaggtag tattgcatac tccctccttc catctatata gggcctaata catttttcga 420  
agctaatttt gaccaaattg tagagcaata atatatga 458

<210> 9019  
<211> 445  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-057-Q1-E1-G1

<400> 9019

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atccgaaggc caaacgggaa tgagaaaagg aagtgtgttg gaaaaaattc ccaattcaat 120  
cacagtatca ctaatccaac ggatcgtggg acgtgcatcg cttgaacata agtcaatatc 180  
tacttcgtat caggggtcaaa ggtacaatat cgattcaacg ctgtaaagat ccgacactca 240  
catatcacat tttcctatct aaataaacct tttcagttgt gcatgccaaa gttacagtga 300  
tgttttctca aacaaccaat gtagctatca tgcacatgca ccactgttac tcttgcattc 360  
aaattcatta gtcttggatg atttaagttt ctattttgaa gtaatatatg taatattcat 420  
atatgaattc aacgggtatg caatt 445

<210> 9020  
<211> 385  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-G10

<400> 9020

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gttgaggattg aggtcggcgg agcctcaggg gggccacgag acagggggcg cgcccagggg 120  
ggtaggtgcg cccccaccct cgtggactgg gtgtgggccc cctattattg attatttcgc 180



cagtattttt atattttcca aaaagtgcct ccgtggattt tcaggtcatt ccgagaactt 240  
 ttgttttcta cacataaaac aacatcatgg cagttctgct gaaaacagcg tcagtccggg 300  
 ttagtttcat tcaaatacatg ctagttagag tccaaaacaa gggcaaaagt gtttggaata 360  
 gtagatacct tggagatggt tcaact 385

<210> 9021  
 <211> 358  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-057-Q1-E1-G12  
 <400> 9021

acggagaaga tgagggtagc gatgaggaaa atgaggacga tgacgagtaa atagtgtatc 60  
 agatcatgag gtagcaaatt ggggtgttggg tccccgctta gtgtactagt ttgctatcct 120  
 gctatcctca gtgctagatg atgagatttg gtagtagatg ttgtgtttgt gtgttaaggg 180  
 ggccctttta gacttgtgga ctcatggttt gagaagttgt ttagtagtgt attagcagag 240  
 aggaagcaga gaatgctacc agctgttcca atgcttttct cttgctaacc acctgtgtaa 300  
 gaacttggtt tcattcgcta atctgatgac tgcccagcca ttggctcttg gttaaaaa 358

<210> 9022  
 <211> 344  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-057-Q1-E1-G2  
 <400> 9022

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 gagtcccggc tccacaagtc cggggattca agaggaaagt gaacccgacg cactaccggg 120  
 agccaagggt ttacaccaag gtgtttaagg aatgccactc ctatgaccaa gatgggaatt 180  
 cctttgagct ttctctggta acttccaagt gcattggagc ttatgtgaag agcaagaaga 240  
 accagaacca gatatgttgg ctatgggaga aggtcaagtg cacagaagac aaaggctttc 300  
 agagattcct ggacaatgtg cagtacaaat ccactggaat cctg 344

<210> 9023

<211> 158  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-G3

<400> 9023

ggttgggctt aattattcac ttttatatta tttttggaac aaacctaatt aaccggaggc 60  
caacccaaaa attgcgggtt ttggccaatt caattgttcc ggataattaa aagggtcaaag 120  
ggattcaaaa tggaataaaa tcttcggtaa cttaat 158

<210> 9024  
<211> 55  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-G4

<400> 9024

gggtccacgg cgaagggaga ttggatggat ccagcgctcg gtgacacagg acagt 55

<210> 9025  
<211> 149  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-G8

<400> 9025

catcatcatc atcatcatca tctcctttct tgtgctaagc tgctaacaag atcgatgggt 60  
acatagcatg gcttgcgc atgaatccatcc acggtcaccc ttcgtgcca ttccccctca 120  
aatgatacgg gatcgactg gagatgtgt 149

<210> 9026  
<211> 448  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-057-Q1-E1-H1

<400> 9026

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angagcgaac tgctagcgtg tgaacggcgg ggtagtggct ttccattatc ccatgatacg 120  
ggcttccgaa agcccttgga tctgagatcg aacggttgca tcgcgtgatt ctagacctat 180  
gggtgaatat cctatcctgg ggggttattc tgcaaatttt caacaactta gcatgcgacc 240  
gtttgatctc agatccaagg gctgccagca gcccgatatca tggtcgcgcc taccacgacc 300  
gtcgcgtcgc tcgcgcggtc gcgcccttgg agatttaaca cggtcgcgta ggctatctaa 360  
tgttggcatg tcatacatag tcatcactta gtcactcata ctacaacaag gttagctata 420  
acgttggcta aaagtgtgtt tatttttt 448

<210> 9027  
<211> 391  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-057-Q1-E1-H11  
<400> 9027

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gcgcatattg tccatgccag cgaatttatc gccagactga ccgttgccctc tacagcaaatt 120  
aatgataggc atgaatcttt acataattgc gatcccgatc atttgactgc cctatccctt 180  
gctgaacatg atgctctcta ctcttggtggc catgatgcca atatttttga acaccaattt 240  
gctatacttc cttatgttac acatgagatc attgctattg cactcatact tgacagttcc 300  
ttcgacgagg atcatgactg caatgatttt accataaatt cccttgatgt caattgtgcc 360  
tataatatgc aaaaccttaa ccttggggat g 391

<210> 9028  
<211> 331  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-057-Q1-E1-H2  
<400> 9028

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agacccta ctcgagcctc ctaattgaac ttcagccagt gtgtatcaca tattaatcgt 120  
acatgggaac ttctgccact gtgtcacaaa tccatcgccc attcgaactt cggettacct 180

cacaacgacg atgacgagct catgtacatt tttcacagaa gaggtcgagt aacaaatggt 240  
catatatata ccgtgggatt gggagtcgaa aatggttgga cgctgtcggg cacgtatctt 300  
cttctctggg tctgctgggt cccttgactg c 331

<210> 9029  
<211> 410  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-057-Q1-E1-H5  
<400> 9029

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ccccgagggg gccaaaccca agaagcggcg cgacgtcgtg ctatagggga cggcggcttg 120  
gtcgaggaag ccggcgggtc atccgcaaca gaacagcaag cgatcgagcg tgcgtgcgag 180  
gcagctcgcg acgacgacga tgacgagctc atgtacattt ttcacagaag aggtcgagta 240  
gcaaattgtt atatatatac cgtgggattg ggagtcgaaa atggttggtac gctgtcgggc 300  
acgtatcttc ttctctgggt ctgctggttc ccttgactgc caggggaatt agtttagtat 360  
gtactgtata catcagttga gtaagttgga caaaaaaaaa cagaccaaaa 410

<210> 9030  
<211> 205  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-057-Q1-E1-H7  
<400> 9030

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ctagtgcagc ctctaaatt tacttctgcc attgatgtat catatattaa tcgtaattgg 120  
gaacttttgc cactgtgtat cagatccatg gccattcct acttctcctt gcctcaccat 180  
ctctatgccg gcttatttcc atttt 205

<210> 9031  
<211> 356  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-A2

<400> 9031

ggctctagaaa tcccggggccg acgggggagct aaatccggta catgggggtcg ctcaccacgc 60  
cgccctgcac ggagaagggtg atgtggaaca ttctgggcaa gggcagggag ctgagccagg 120  
agcagttaca actcatcacc gcgctgctgc ctcaccagga caataggccg ccgcatccgc 180  
tcaatggccg ccaagtcgcc ttctacaagc cgccaaacac catcatctcc atccaatccc 240  
tagtactccc tocctaaacg attatgaaag cttacatttg ttacagagg gagtacaata 300  
agcaggacat agtacatact ccctcctcgg ttccacagta taagaacgtt tttgac 356

<210> 9032

<211> 221

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-A3

<400> 9032

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ccagccgagc cacgaggaga agcaggagta cgcgtccaac gagcacaacc agaaggcgct 120  
ggccgagatc tacctcctca gctactgcga caagatcgcc atgagcgctt ggtccacctt 180  
cgggtacgtc gcctacggct tcgccggcgt caagccgtgg a 221

<210> 9033

<211> 398

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-A5

<400> 9033

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aaagtaagaa aataatacaa gtatctatgt aaacatacaa gttagaatat ttttcctttc 120  
agaaagaaga taaaacaaga ggctcaccac ggggtggtgcc ggcgatgagc tcggcgcggg 180  
tgatcgacgg cggtgaagac ggggatgggg tgtgacggac cactaaacct agacaaatat 240  
tatggaaaat ggagcttggg ggtcaagctt ggaaaggaga aagcttaagt agtgtggctc 300

gggcattcca tcgaacacgt tgtgtgcata ggaggtgagc tagagcacca ccaagccctc 360  
 tcccccttgg cgagagaaaa acagagcact ggggtgct 398

<210> 9034  
 <211> 332  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-058-Q1-E1-C7  
 <400> 9034

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 ccatctgtat atataacaaa gtgtacataa ctgccggttc agggatgggc aattgcacag 120  
 ctctagtaga tcaaaacaca cacacaacct accacatcat cccaaccac caccctccac 180  
 accccccacc ccaaagtgtc accaacgccc caccacacc caaaccttca ccaccacaca 240  
 cccaacaaaa caaaaaacgc ggcccccaa aaggttccaa ccttaattcc ccgttgcagg 300  
 aaacttcaaa ccccccaaa acagtcccc aa 332

<210> 9035  
 <211> 273  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-058-Q1-E1-D3  
 <400> 9035

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 accactggat gtggttttga gggatttttg cagtgggggtt tgtaagggtgc tatgccgcgc 120  
 tgggtttggg atttgaaata aaacgaagg agatgtgcca cgctcttaaa tgccaaaaaa 180  
 aaaataaaaa aaagccaaat caaaaatcaa tacaaggaat ttaacaactt atctatgcaa 240  
 atttacccc cgcaattcaa tcaatctaaa tct 273

<210> 9036  
 <211> 357  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-058-Q1-E1-E10

<400> 9036

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ctcatgagag agtcatgctt gagacttggt gtcttgatat actggagagc attgcatgca 180  
ttgcttgatg gttttatttg aagggtatat ttaaagctgt actgatggat ctcttggtg 240  
agccacctat tgtacagtgc catgtctatg acaagctatg catcacaggc aatctagtca 300  
aaatgctgtc gattctatct gacgtttggt actgaatgaa tacctgatac aaacggt 357

<210> 9037

<211> 237

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-E2

<400> 9037

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agtaaagtaa taatattaag aactagatca tctaacccca ttgaatgaaa aaatgaaatt 120  
cgattttcaa ggaaattttt gaataagaga taaataaaca attgaattga aaaaaaaaaa 180  
cttctttcca ttttggaaaa tttccttttc aataagaccc tctttttgga gtgaacg 237

<210> 9038

<211> 241

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-E9

<400> 9038

gacggggtat gacagataat atcgatatag gttattctac aagattactc tatagatcca 60  
tcagctctaa gtaaactgcg tataaatcat gtatgtagaa ggtatgtgtt actgatgtta 120  
gaaattgatt ccttggtgtg ggggtgcggat gtaacacaac atgtaattct taatatccac 180  
atgcctcacc aaaacaatgt acggctaacc cacaattatg acgttatcaa gctcattaca 240

a 241

<210> 9039  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-058-Q1-E1-F4  
  
 <400> 9039

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tgtgcaaaga tgtgcagaga aggtctcagg cgggtggttt cattgacttt ggccgcttta  120
ccaatcatcg ctcttttgag accggttcaa agccgattga ctacatccag agatttcaca  180
atggtgattt agcgaaatgt gaaactacgt ttgaagagat gggccgtact gcacaggcca  240
acattatgtg tggacgatgc tcaaataaag tatgcaaaga tgaacatgga tgcatttgcg  300
gcgtatccta tgatgaaagg atgtgcagga cggttgttga gctagccatt ccttgctcta  360
aaagaggtcc aagagttttt acgggtttca ctctgtgggt tcacccccgg tcagcacaag  420
tggtttacaa tggattgac                                     439
  
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<210> 9040  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-058-Q1-E1-G1  
  
 <400> 9040

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gcatgttgcc caatcttggg aaagaatgaa attgatgctt cgcaattgcc ctactcatgg  120
tttgaattta tggatgatca tacaaaatgt ttatgcccggt ttgaactttg cttctagaaa  180
tctcttagat ttggccgccc ggggcacggt tatggaaatc actttaggag atgctataaa  240
acttcttgat aatattatgg ctaattattc tcaatggcat accgaaagat cttctagtaa  300
aaaagtgcag gctatagaag aaatcaatgt tttagtgga aagatggatg aacttatgaa  360
attgtttgct actaaaaaca ctctttttga tcctaagat atgcctttgg cctccttga   419
  
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<210> 9041  
 <211> 356  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB104-058-Q1-E1-G4

<400> 9041

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atgacgtaag acaattgcag cattttgaac gacaaccttg gttaaacatt cgcaagtgtt 180  
acaaacaggc agttagcgca cgaatgtcta aggaattacg caaccctaatt cgcaacttca 240  
atgtgatctg caaccgcaca atcattccaa ttggtcagct aggtaagctc agtatcaggt 300  
tcatgcttgt agcctcgaat acttcgcaac ccagctcatt ctgtccaacc attcac 356

<210> 9042

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-G8

<400> 9042

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gactacgagg aggagctcga gaaccacctc cgcgtccacc accacgagca cccaggcggt 120  
ggcgagggtt atggggacga tgatctcgag gctgatggcg agggcgaggg tgagggtgag 180  
ggcgaggatg aaggcgagga tgacggttct gaagagagcg agtacgagga ggaggggttt 240  
gatgaggacg aggaggtgga ggatgtggat ctagaccccg cagagtacga ggacgacgag 300  
gcttatgcac gggcgcttca ggacgctgag gagcgtgagg ttgccgcgcg gcttatggct 360  
ctcgctggga tcagcgattg gcgggcccgtg gaacatgttg aggattacat acacgacgcc 420  
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<210> 9043

<211> 445

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-H10

<400> 9043

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ccaacatgaa ggagtcggag atatctcagc tcatgcaggc tgccgatatt gacaacagtg 120  
gtaccataga ctatggagag ttcatagctg cactctaca cttgaacaaa gttgataggg 180  
aagaccatct atatgccgcc ttccaatact ttgacaagga tggtagtgga tacatcacgg 240  
ctgacgagct ccaacaggca tgcgacgagt ttgggattga ggatgttcga cttgaggaca 300  
tgataggcga agtagatcag gataatgatg gacgcataga ttacaatgag tttgtggcca 360  
tgatgcaaaa atcgaccgca ggctttggga agaaaggcca tcagtataac gttagtgtcg 420  
gtcttaggga tgccttgaac ataaa 445

<210> 9044  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-058-Q1-E1-H3  
<400> 9044

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aacctcgctt tcgaccgca gctcatcggc ccggccatgt acttcggcct catgggcgac 120  
ggccagccca tcggacgcta cgacgacatg tgggcccggct ggtgcgtcaa ggtgatctgc 180  
gaccaccttg ggctgggct caagacgggg ctgccctaca tctggcacag caaggccagc 240  
aaccggttcg tgaacctgaa gaaggagtac aagggtcatct tctggcagga ggacatcatc 300  
cccttcttcc aggcgcgcaa gctgaccaag gaatgcgaca ccgtgcagaa gtgctacatc 360  
tcgctctcgc agcaggtaaa ggagaagctc ggcaagatcg acccctactt cgtcaagctc 420  
gccgacgcca tggtcacctg g 441

<210> 9045  
<211> 374  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-058-Q1-E1-H4  
<400> 9045

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accccccaacc ttgacgcca ggtcagtaga aggtacatctt gattgctggg gtggatggaa 120

gagtgacaat aactacaggt tgggtcaaagg ttgaaagaaa ttctccttta aattaggcca 180  
atgctactca acttttcttt gagtgacgag gaatttcaac cgtccttggc gaaggactgc 240  
tatctgattg tcactagcct cgtgtgtaaa tgcttcgctt tcaatatttt gtactatctt 300  
gctgccctat gtgctactta agcctgatct attaaacatt acttggccta ttcctttgtg 360  
ccgagcttga tgtg 374

<210> 9046  
<211> 373  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-059-Q1-E1-A1  
<400> 9046

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ttgggggtcaa gagtggcgct gatggtgaag gtaccaccag taccgtcctc cttggcgaa 120  
accttcttgg tctcaggtgg agctgccatt gccttcttac gcttgccggt tgagctcgat 180  
ggtgcaccc cgcacggtagc gcagcactcc gaagaggtgc gcttgccgga gtgggagtca 240  
gagctcttgc cggacttgggt catgttcttc cccccgggag cttcagcggc aagtgtcctg 300  
cgttctgctg cggtctgctg ttcccggtag atctcgtcgg atcagacaag atcatccatc 360  
atgtcgccag gaa 373

<210> 9047  
<211> 402  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-059-Q1-E1-A10  
<400> 9047

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aagtatgtct agaggggggt gattagacta ctcgacccaa taaaaatcta gccttttccc 180  
aattttaagt cttggcagat tttaacaact tagcacaagt caagtaatca acctacacat 240  
gcaattctaa gagtatagca gtggaatgta aaacaattgc atatgaaggt aaagggagga 300

gtttggaggg agaaaacgca atgtagacac ggagattttt ggcgtgggttc tgataggtgg 360  
 tgctatcgta catccacatt gatggagact tcaaccacg aa 402

<210> 9048  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-059-Q1-E1-A2  
 <400> 9048

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 ccatagactt tgaccaagc atcctcgtga cagggtttgt cggaaccgcc atcgcccttg 120  
 ggtgcttctc tggcgccgcc atcatcgcca agcgcagggg gtacctgtac ctcggcggcc 180  
 tgctctctc tggcctgccg atcctgctct ggcctgcagt tggcacgtcc atctttggcc 240  
 actcctctgg cagcttcatg tttgaggtct actttggcct gttgatcttc ctggggtaca 300  
 tgggtgtacga cacgcaggag atcatcgaga gggcgcacca cggtgacatg gactacatca 360  
 agcacgcgct caacctcttc accgacttcg tcgcgctcct cgcccgcatc ctcatcatca 420  
 tgctcaagaa cgc 433

<210> 9049  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-059-Q1-E1-A3  
 <400> 9049

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 ggcgcagtct tctatggaag cagagtacat tgctgcgaat gaagctgtaa aagatggcgt 120  
 ttggttgagg aacttcctgg tttctctcga gatagttgaa aatgcgtctg atccggtcac 180  
 ttttattgtg ataattaagc tgcgattaat ctttccaagg attccaagtt tcatagcagg 240  
 gctagacata ttgagggaaa gtaccattat attagagatg taataaatag gctgaaaact 300  
 gttcggcttg catTTTTGCC TGGTAATGAT ATGTTGGCAG ATCCACTGAC TAAACCTCTT 360  
 agtcaggaat tgTTTTGCAA ACATGTCAGG AACATGGGCC TTAAGATTTT TGATTGAATG 420

tttt

424

<210> 9050  
<211> 454  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB104-059-Q1-E1-A4  
  
<400> 9050

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tttcctttgc tcattcttct ctttatctct tcaatctcct tgtctgtctt ctgagcttct 120  
ctgatccttt ccatcaagggt ggactgaatc tccaatgtcg ctagatagcc tcttgggact 180  
atctccaaac atagctcgcg aaggctctcg gctaactcct aaggtatctc tcctgtcatg 240  
ggggtgctgc catggatctc ttgctgcagt tccatgcgta ngatgaagggt ttcattgaatc 300  
acgagtagca taggaacaaa gtgatgagca ccggccgagg cacctttgggt catcttggtc 360  
ttcaaacaga ttgcacagcc agagcaaaca acattccaca ccgangcagc tangatgaac 420  
acagtantag tcgagcataa atatatgaat acag 454

<210> 9051  
<211> 412  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-059-Q1-E1-A5  
  
<400> 9051

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ccccgctcgc caacggcagg tctggaatgt tgccaatgtc gagccctcca gcaaatccgg 180  
gacagcttac cattttttat ggtgggtcag tatgtgtgta tgactcagtg ccaccagaga 240  
aggctcaagc aatcatgctc attgcagcag cagcagctgc ggcctcaaaa agcaatggca 300  
ccgctgctgt taagcctcca gcgatgtctg cgaccaatgc tatccaagcc atgcttacgc 360  
ggtcgctctc actccagagc acttctgtag caaatggaca acctcaggct gt 412

<210> 9052  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
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<400> 9052

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taaactctatt ggtgctaata ttggtgttgg tgccaatgga ggcgctggtg ctggtgttgg 180
tgctggcctt ggagcaaacg taggtattgg atcaaata ggtgccaatg ctggtcttgg 240
tagcgggtgct ggtgctggtg ctggtgctgg tgccaatggg ggcgctaaca ttggagtgg 300
cattggagca aatgtagggt ccaatgccag tcttggtgtc ggtgcacata aaggtattgg 360
tgctggtgct ggtcttggtat cagatgtang tattggagca catgttggtg ccaat 415

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<210> 9053  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-A7

<400> 9053

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cacgaactgg gcgtggacga gtgcacggca atgatctgca gatttgacct cgacggcgac 180
ggtgccctct cgttcgatga gttccaggtc atgatgatgg cctgatcatc gaccctcttc 240
gtggcatttt tctagactga tatgattttc cacttaatgc atcgatcgat cacatgtatt 300
tgtacgtgtt cattctttcg ttgatttgct cgcacgatca tctcgattt ttgtgaacac 360
gtgtacagat tcatttggtg tcacac 386

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<210> 9054  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-A8

<400> 9054

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ggacaagtgc cctcggattc agaaaactct catgagaaga aagtaaagcc tgtctgaaga 180  
agctgctgct gcctaagtga aataacatag ccgttggttg ggaagtctgc atcaaatcac 240  
attttcttat tcaaggggtg ggaggagatg gtgttggttt aattctttag ttgttgatga 300  
tttctctttg gccccaggag gggatgggga tccttggtgc atgatccaga aattgtcaat 360  
gtgggttttg ggggggttgct tttgcttata ttttctcacc agcaaaggct atatg 415

<210> 9055

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-B1

<400> 9055

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cgactgagga gagggcacac cctgtgctgt tagagagctc cgttatccag cttgacgagg 120  
agctggacgc aggggtctcc aagtgaagtg gttgtaatca tggtagctac tagttgtttt 180  
tttgtcttga tctatctggg tctaagattc taaaatacat tcgcccatac atcagtacta 240  
gataggggtg tggttgcca cgcattgccc agccaacggt aagccatcgg atatgataat 300  
cggttcaata tatagctgaa ttagatattt tattgttggtg ttgggagctg tcttgagcac 360  
atagttagaa atcatgtttg tagttgctga aagaaaa 397

<210> 9056

<211> 295

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-B10

<400> 9056

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cttctactcg ctggtcaaga ccaattccat cccgctgctc aggagcaatg cctgcagctg 120  
 cgtcatccag ggcttcaaga tcttgccta cgtgggggtac tcgcccagag ccggcaggca 180  
 ccacgcccac gcctttcttc tcctcgtcga cggctccgcc ttcgcaactga atgtcacctg 240  
 gagtgttctc ctctacgac agcctagtcg cgtcaaagtc cttgggagag tctgc 295

<210> 9057  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-B11

<400> 9057

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 tcagattatg atgaccatca ttgatgacct tgtgtctgtt gacactctga ttgaagacca 180  
 tctctgcgtc gagccagcca acgagtacat ccagagctgt gacattgttg ccttcaacaa 240  
 aatctaaatc ttcctgaggc aagtgatggc ggtcgggtgga caatgcagca gcacaaacaa 300  
 tatacttaca gttttccgtt gccgtagcta aagcagcata acatattctg ccctgtgagg 360  
 tttttggacc ttaggttgag ttgggt 386

<210> 9058  
 <211> 405  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-B12

<400> 9058

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 aactgcatct gttgtgaact gcctgctacc tgtggtggta acctagaatg ctatctatat 180  
 atgtgtggcc ttaactttat tgggtgtgaa tgcttccttc atgttttagtt gttgtttcat 240  
 ggtgcaatga acacaaatgg cgcttcggtg ttgcttcaga catgctgcaa cacttgtcta 300  
 tgatgtgggc aagtggaaca tgctgtgcc atgtgccaat tacaccaaat attgaatgtg 360



gcaatgttcc aaaatggctg tcatgaatta tagtacatgg ggttt

405

<210> 9059

<211> 422

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-059-Q1-E1-B3

<400> 9059

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gtttatctcc aaggtgaact gcctgcctac tctctctggc tctcatcacc tagctagcag 120

ttaatagtag tccctctgtc ccaaaataag tgtcttaact ttatactagc tctagtacaa 180

atttgtccaa agctcaagac acttatattat ggacggatgg agtagtatat attcggttgg 240

tacttataac actggactgg agcttttcct gatgcattgc atgcttgcca aaatttccag 300

gggaggggag acttgtagag ctccaagtgg agtgtctgcg gaagtcattt gagtggcgtg 360

aggagcaatg gctgcctcta gatgcangaa aagatgttgc ggccaagata acccttgacc 420

tg 422

<210> 9060

<211> 403

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-059-Q1-E1-B4

<400> 9060

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agtgacaggc gcgagaatcg aggagcccaa aagttagata tatggcagag ctgtcgcttc 120

gattgtcgga ggctcattaa ggaaggtag ctatatgcaa tttttaataa caggtgacgt 180

catggcggtt tatcatgatt ctggaagatg acattatggc ggtttacaag aattctgtga 240

agatgatgat gcgtttaaga ttgacatgaa ccagttcaga tcaatctggg gcctaattgtt 300

ggggatatta ctactgggca taaaccggcc aggagaggcc gggttatccc cacaatgggtt 360

tactgtnact gaagcccatg aagacagacg gtggtgcttt atg 403

<210> 9061  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-059-Q1-E1-B5  
  
 <400> 9061

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 atccaactta ataagaccat catggattcc aaccgagtta tttgtgatat ccagaatata 180  
 acccgacaca aagagttatt tgtgatagaa gtacatgcat ttgcaaaaaa tagataatgc 240  
 attactctta tattctactc cttttgtaaa ctaataaag acttttttaga tcactaaagt 300  
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 gagattctta aattatc 377

<210> 9062  
 <211> 478  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-059-Q1-E1-B6  
  
 <400> 9062

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 caatggggac gccacacgca ctacactacg cctgggactg cgccgccgcc gcggtgtagc 180  
 caccagctg gagttgtctt ctgatgatgg cggagtggct gagcgacaac gacggaccag 240  
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 cgacacagga ctgcgccgtc gtgaggggtt ttatagcagg tcggtaagca ttgggatttt 360  
 gggggatttc actgagtcag ggagaagctt gcgcgggaaa ctgcgaggtt gcgcgggaat 420  
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<210> 9063

<211> 426  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-059-Q1-E1-B7  
  
 <400> 9063  
  
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 actggggacg ccacacgcac tagactacgc ctgggactgc gcctccgccg cgggtgtagcc 180  
 acccagctgg agttgtcttc ggatgatggc tgagtggctg agcgacaacg acggaccagt 240  
 gccattggcg attgtgggag aagcatacga gataaggtac atggagggat gggaaaatgc 300  
 gacataggac tcgccggtcg tgagggtttt tagagcaggt cggtaagcat tgggattttg 360  
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 agtca 426

<210> 9064  
 <211> 467  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-059-Q1-E1-B8  
  
 <400> 9064  
  
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 agacacaatg caaaaacaaa atatgaattg gttttcaata gtacttagag tagtgatttg 180  
 cttcattata ctaacggatc ttaccgagtt ttttgttgaa gttttgtgtg gatgaagtgt 240  
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 ggatgcccg ggcaccccaa gtaaattatc aaggagactc aagcgtctaa gcttggggat 360  
 gcctcggaag gcatccctc tttcttcaac aagtatcggg atgttttcgg attcgtttcg 420  
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<210> 9065  
 <211> 405  
 <212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-059-Q1-E1-C10

<400>      9065

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gaaggcaaaa tccctggaaa atcttctaga gaccaacca tacaccatcg ggaagaggac  120
tacagttgca acgtgagtga actacagctt ttgaaagaga aaaaggaaca ctatgacgct  180
aagaatttgt gtatcaattg gtttattcaa atttggtgag aggggtaaat gggaatagca  240
gtagcgtttt gagtatcgag atacaaaaat ggtctgattg attgttgtaa agttgcaaag  300
gctattttca cttgttatta cttgctcggt gtctagagca attaactgtg ctcgttgaac  360
aggtgtgttt tgcctagtcc tactagttac atacactaca acaaa                    405
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<210>      9066

<211>      211

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-059-Q1-E1-C11

<400>      9066

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cttttgagag aacgaaggca cactatgacg ctaagaattt gtgtggcaat tggttttattc  180
aaatttggtg agaggggtaa ctgggaatag g                                211
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<210>      9067

<211>      400

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB104-059-Q1-E1-C12

<400>      9067

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gggggcaaca gacacccttt cgaggttggt ggcggtagct ggtccctcca atcggcccaa  120
agttactagg ccctggcaga tcttcttctt tgtttgggtt caagtccgag tctctccact  180
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ggcattccgg ataagaatga atgtcaaata aggattagag ttagaaacaa accatgaagt 240  
 tgacatcaac ggggaaacat aaatttagac gagtaaagta catagactag tactccctcc 300  
 ataaagaatt ataagagcat ttggatcact aaaatagtga tctaaacgct cttatattag 360  
 tttatacaga ggtagtaaat gtataccgga tgcaagcatg 400

<210> 9068  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-059-Q1-E1-C2  
 <400> 9068

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 tgaaaactgc gtaccatttg caatggatgc aactaatag ggcacatgca aatatgatgg 120  
 agagtgcagg tcccacgtat ggtggttcag cgcctttggc agtgtggaat acactttgga 180  
 aagtgcagg cccacgtaga attcagattt ttgggtggag ggttctgcga ggaatcgttc 240  
 cgctaaaagc aatcctgaca aacagacaca ttggttctaa tggggcgtgc ccgatatgcc 300  
 atcaagggtgc tgaggatatt aggcattttt tatttctatg tgtgcatgca aaggaagtgt 360  
 ggaggcgtct tgggatgttg caactggtgg aagatgttgt tctagtggat tcgggctcga 420  
 ttata 425

<210> 9069  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
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 <400> 9069

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 actccaaggt tgagcgaaga taaagtaaag caatgtgttg atccaaagct caacagtgac 120  
 taccctccaa aagccgtcgc caagctagca gcagtggcag cgctgtgcgt gcagtacgaa 180  
 tccgacttca gaccgaacat gacgatcgtt gtgaaggcga ttcagccctt tctcaaccaa 240  
 aaaccggctg gaccagccgc cgaagcaccg aaaccctgat cgatcagcgc tagggggcac 300

aaagaagctt gaatgaactc ttgcatgggt ccatgtgtta tatctataga tcatctactt 360  
gatttgttta ggtcatgggc tgaccacctg tggcgggtgct aggttcaaaa ccttgtcatg 420  
tcaaaatttt ctgaacgaan atcgtgt 447

<210> 9070

<211> 406

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-C6

<400> 9070

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actccaaggt tgagcgaaga taaagtaaag caatgtgttg atccaaagct caacagtgc 120  
taccctccaa aagccgtcgc caagctagca gcagtggcag cgctgtgcgt gcagtacgaa 180  
tccgacttca gaccgaacat gacgatcgtt gtgaaggcga ttcagcccct tctcaaccaa 240  
aaaccggctg gaccagccgc cgaagcaccg aaaccctgat cgatcagcgc taggcggcac 300  
aaagaagctt gaatgaactc ttgcatgggt ccatgtgtta tatctataga tcatctactt 360  
gatttgttta ggtcatgggc tgaccacctg tggcgggtgct aggttc 406

<210> 9071

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-C7

<400> 9071

gggggacaag tgacttattc tgatgatgat aaaacgctgg ccaaacagcg tgaggaaata 60  
aagcgcatga ctgctgagtt tgatgcgagc atgctggaga tccgcaagaa tttggatgct 120  
atggatgaaa ttgagaggcg gagtgcggag gactatgaga agttccgtaa gaagctaaac 180  
aatattgaga aagcatgcaa tggtgctttg atcgtgctgg tgcctagcac tggtctgctt 240  
tttatgtcac tgtagtatca tctctattag ttggttataa gaaaccctta tttaactagt 300  
gggttaagaa accctacctt cagaactcta tgtgtttag tgatccagct ttggactttg 360  
cattgcatct taatgaacgc ataatggtga gc 392

<210> 9072  
 <211> 222  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-C8

<400> 9072

ggtatcacia taattatgct ttttcactct tattttataa ggtttacatg aagagggaga 60  
 atgccggcag ctggaattct ggactggaaa aggagaaaat attagagacc tattctgcac 120  
 aactccaaaa gtactaaaac ttcagggaga attattttgg aatatataaa aaatattggg 180  
 cgaagaaagc accagagggg gggcactagc catccacaag gg 222

<210> 9073  
 <211> 349  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-C9

<400> 9073

ggaagaattc cgacagcacg acggcgtggt gacgatcttg atgaactaca gcagcagggc 60  
 ttcgcctaaa ctccgctaca gtattatcga ggaatatggt ggcagggggc accgcacacg 120  
 gctaaggaat agatcacgtg gatcaacttg tgtgtctttg ggggtgcctct accttagtat 180  
 ataaaggagc caagggggga gggggcgccg gccaggagga gagggcgtag gaggagtcct 240  
 actccttccg ggagtagcac tcaccccaa tcctattcca actaggattc cccaaacggg 300  
 gaaagagga gaagggtggc cggccacctc tcctactcc taataagac 349

<210> 9074  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-D10

<400> 9074

cgacggcaaa atacagtaca ggatacagtt ccagaggcca aaccccgtcg gcaccaacaa 60  
 tgcgcctcca tcaccaacca ccgcggcagc agcggcgccg cggccaacaa cgccgtcgtg 120

cctgtccctg ccgtcgcgga gcatacagaac ctgaaccggc acgagatcga gatcgagggg 180  
aagaagatca acgacaccga caagaggaac aacggaggag tcggagccgc gcaggtaccg 240  
acaagcaacg ggcagacaac gccgccgacg gccacgttcg acctgggtgt aaaaaagcc 300  
agaagacgct gtgagggagc tgaacgagca gccgcaccgg gagttcacga cggacgagac 360  
cgacagcgac gacatgggcg atgactacac 390

<210> 9075  
<211> 363  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-059-Q1-E1-D11  
<400> 9075

tcatagtacc agaggccaaa ccccgctcggc accaacaatg cgctccatc accaaccacc 60  
gcggcagcag cggcgccgcg gccacaacg ccgtcgtgcc tgtccctgcc gtcgcggagc 120  
atcagaacgc tgaaccggca cgagatcgag atcgagggga agaagatcaa cgacaccgac 180  
aagaggaaca acggatgagt cggagccgcg caggtaccga caagcaacgg gcagacaacg 240  
ccgccgacgg ccacgttcga cctgcgtgta aaaaaagcca gaagacgctg tgagggacct 300  
gaacgagcag ccgcaccggg agttcacgac gggcgagacg gacagcgacg acatcggcga 360  
cga 363

<210> 9076  
<211> 449  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-059-Q1-E1-D7  
<400> 9076

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gatgacactt attgggcctg gcattttcag tatcttgtag gcatagttag aggctgccat 120  
gaacttggcg agtgccggac ggccaaggat tccattataa ggtaatggaa agtcggcaac 180  
gtcaaacgtg accctctcag tcttgaagtt cagctcactg ccaaagtgtta ccggcaacgt 240  
gatctttccc ttgggcttgc tcttcccgg gttgattcct tgaaatgtgc cggctctctc 300



gagctcgctg tcaggggtct ggagcttctg gagcaccgcg gaggagatca ggttcaagcc 360  
 ggccccgtcg tcaactagca tcttagtgac cttgaggttg cggattgttg gtgaaaccaa 420  
 catcggaag cacccgaccg cagttatgc 449

<210> 9077  
 <211> 459  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-059-Q1-E1-D8  
 <400> 9077

gggcagttta cttaaaaaat ggaaggcatg gttactgacc ttactgttgc aagagatcat 60  
 caaactaagt ttgaagagtt tgtagctgat catccggagt cgaatcctga ggtagacttg 120  
 gctgttactg tcttgacaac tggattctgg ccaacctaca aaacttttga cataaacctt 180  
 ccctctgaga tgggtgaaatg tgtacagggt ttttaaggagt tctacgcaac aagaacaaag 240  
 cacaggaagc ttacctggat atactccttg gggacctgca atatcagtgc aaaatttgat 300  
 gctaaaacta tacagctcac tgttacaaca tatcaggctg cactgctgtt gttattcaat 360  
 ggatctacta agcttagtta ctctgagaat gtaacacagc tgaacctgtc agatgatgat 420  
 gttgtccgtt tgctcaantc tctctcttgc gcgaaatac 459

<210> 9078  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-059-Q1-E1-E1  
 <400> 9078

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 tgagtttgcg agtggccgaa gcgaagcaac ctcttctctg ctgcctgcaa cttgccggac 120  
 aagtctgaat ctgcaatcca gtgcgaacca atcgcatcga tccgatccga tccgatcgga 180  
 acggccggac caaccaatca atcaatgccg ctgatgctgc gtgcaaggaa catccaggtt 240  
 agtctagcac cactgctgac agaaagatag tactccaatg ggtgtgcgtg cactccaccg 300

cgtgcgccag atagatagat agatagatag atcaatcaat tatcgtggat tcaatcatca 360  
 cccatgcgtg tcgctcacna gacataacgt ctgcattatc agttgttgtt gatagcacta 420  
 ataactcccc tgccaag 437

<210> 9079  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-059-Q1-E1-E10  
 <400> 9079

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 cttcgtggtc cggttcccgg acgccatgcc gctggacaag ggcgcgcccc tgctgtgcgc 120  
 cggcatacacc atgtacaccc ccatgaagta ccacgggctg aacgctcccg ggatgcacct 180  
 cggcgtgctg ggcctgggcg ggctcggta cgtcgccgtc aagttcggca aggccttcgg 240  
 gatgaagggtg acggtgatca gtcacatgcc ggggaagaag caggaggccc tcgagaggct 300  
 aggcgcgcgac ggcttcgttg tcagcaagaa cgccgacgag atgaaggctg cgatgagcac 360  
 catggatggc atcataaaca cgggtgtctgc aaacat 396

<210> 9080  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-059-Q1-E1-E11  
 <400> 9080

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 ggagaatcca agaacgtcgt ctaagcttgt tagctcaaata tgaagacgta cgccgaacta 120  
 gggcgataca gcgttcgagt cgaaagaagc atggtggccc atttgggtcaa gaccttgtaa 180  
 ctgtggcagt cgtcggatat acaaatgctg gaaaatctac tctagtgaat gcactttctg 240  
 gagctggtct atacagtgat gatagattat ttgcaacagt agatcctcga ttacgcagtg 300  
 tgattcttcc atcagggaga aaaatacttc tcagcgatac cgttggcttc atatcagatt 360  
 tgctgtaca gctagtggaa gcatttcat 389

<210> 9081  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-E12

<400> 9081

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 atgcactctg catgaagggt gtgatgaata taaagggtgc gattaccagt ccgtaaagt 120  
 gggtgacatt gtagataact tccgtcttca ggagcagact gcttttgttt ggaagcattt 180  
 tagctctcac ataatcact acaacagtaa cactctgcg aaacattcta gggataacat 240  
 agaatgtttt caagaccaat gttcagggtc gcgatacacg taaacatcta tacacagcct 300  
 cacgagacac ttcaatacat tgttggttaa attaagcatt aagatgacag ggatttctcc 360  
 gactactgtc aggaaggatc agctgattga acattcctgt actttgcaca 410

<210> 9082  
 <211> 470  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-E2

<400> 9082

ggtccgtact tatcgggtgg ccggcaggtc caacacaact ttttagacc gtactctcta 60  
 ttttgcgagc ttgtaaagtg cattttacct cagccatcga cccttggcat gtcaaatac 120  
 cagggtcgtg gcgttattat atacaaaaca atgattggca tgtcactcaa gttctagtga 180  
 atataattta tatcatgtat tcacttttct ctaaaaaac tgtattttgc tcctttagtt 240  
 atttcacacg ccgtgccagg ggctcgatat gggaacaaac taaattgcca ataagtctga 300  
 acagctttat agcatacttc ggcgtcgcga ctttggcctt atatgcatca gctccgaatc 360  
 atgtcttggc tcaatagttt ggtttcccggt ctctgtgct tgctacctta cgttccgctc 420  
 tatccgctaa ggtagtaaag ggagaactac tgcgattgtg ccctggttta 470

<210> 9083  
 <211> 427

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-059-Q1-E1-E5  
 <400> 9083

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 gttctgcaca ctcaggatcg ccttgaaggt ctagctgcat ttgcagagaa aagaagacct 120  
 ttgtacacag gaaagtgagg ccgtactgaa gtcagccctg ttagcctctt atgtcttctc 180  
 tgctgatacc ctgaagaatg tgccttgggt ccaaagaaaa aaaaaacctg aagaatgtgt 240  
 ctgggttgct agattatttg cagatgtatg tgctacatct tctgattgtc atgatcgct 300  
 aaaactgaat gaaccgcacc catgtaactg taaggatga aagctgcac tggagatgct 360  
 gcgggttggt ttcgtcaaaa aaaaaacaac ttgggtgtga atacaactaa taacccccct 420  
 gccaca 427

<210> 9084  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-059-Q1-E1-E6  
 <400> 9084

gggcattata ggaagttccc aaacaaaatg gtaaagttta tactcccctc caccaacaag 60  
 catcaatcca tggcttgctc gaaacaacga gtgcctccaa ctaacaagag tcccaggggg 120  
 agttttgttt gcaattattt tgatttagtt tgcataaagc atgggactgg gcatccctat 180  
 gaccaaccac tttctcgtga gtgaggagcg gagtccactc ctcttgagaa taaccgcct 240  
 aacatggaag atacgaacaa ccctagttga tacatgagct attcgagcat acaaacagg 300  
 atatttattt gaagatttag agtttggcac atacaaattt acttgggaacg gcaggtagat 360  
 accgtatata ggtagatatg gtggactcat atggaataac tttgggggtt atgggattgg 420  
 atgcacaagc agtattcccc ct 442

<210> 9085  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-E7

<400> 9085

ggcccagtat ctaaataaac tgggatgttt agttcgtgga ggggacggtc acaattggaa 60  
ccatctagct ctaggggttag aacgcaactt atgatctcga ggtagatcaa gcttgtactc 120  
gatacacaat catcaatata atcaaagcaa gacgtagggt attacctctt cgagagggcc 180  
cggacctggg taaatactgt ctcccttctc ccctgttacc cataaatctg agatacacag 240  
ttcgggaccc cctaccccgga ggtctgccgg tttttactac cgacacctac aatgtcgtcg 300  
gcgccgacgt agaagcactg agctttcgtc cggtagctcc tccctcatac attgttgtgg 360  
aaacttgacc atcgagccca ctccaaggag gccaccgcc gccatgatga atttgggcct 420  
tc 422

<210> 9086

<211> 463

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-E8

<400> 9086

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gaacaacgaa tgtgaagttt tcctctgcgg catttggtta gaggcaccga ggtaaaactta 120  
tttttgattg aatcatgatg agaaatatat tcacgcgagt caccccaatt ttgtttaaaa 180  
tcgtatcaat aaggagatat ttaacacaac acaatcataa cttgcacgcg atgtacgcct 240  
tgtgaattaa tcatgttctt accaatgcct catgtctaaa ttttttgttc catgagggca 300  
ttcatgtaga cccatccttg tttttctcgt gacaatatct tcaaagctag acccattttt 360  
cgggtgtctcc tttgtacctt tatgttggat ctttttcacg tgctaaagcc aagtggactc 420  
gccccgcctc ggtagcggca cacacctaga acgaacaacg cgc 463

<210> 9087

<211> 396

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-E9

<400> 9087

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gtgtactgga tgttatatca ggtgacttgc caaaaagcat caaattgcag aataaacatc 120  
ttgctgcact aatcgaattg cacaacatga ctggcacttt tgctcggaac attcagcact 180  
tattttcaga atcagatctt ggagttgtgc tgagtacatt gaaagctatt tattccccat 240  
atgaaacctt taagatgagg tatgggcaga tggagcgcg tgtgctttct gctgcaatgg 300  
ccggtataga tatccgtgga gccatctccc gtggtttagg tgcacaaggt atagagctaa 360  
gtgaaactgt ccgtaggatg gaggaatcca tcccac 396

<210> 9088

<211> 335

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-F1

<400> 9088

caccgaggaa ccagtggcga gtacaccgtg gaagaacaaa tcctgttgtc ggagaggtat 60  
cctcgatgat gatctgtttt ggctgaaga acaactctac tgcatggttc cttgtaatac 120  
atgtcaagtc aaaggacgtc ttcggatgat tttgctgagg atgaaaccta gtttttgttc 180  
aactgtaa atcttctggaa gcaatttggg agcgacattt ccttgattca gatgattttg 240  
tacatttttt catgtgaacg ttaagaaggt gtttgtttcc agggacttat tggtttaggg 300  
acttaaaaaa gtccctataa gtccaccta aacca 335

<210> 9089

<211> 386

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-F10

<400> 9089

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agaggagaat ggactggatg tagttgttgt caatccaggg actgttttgg gcccgatgat 120  
tccgccaagg atcaatgcta gcatgggcat gtttcttcgc ttacttgaag gctgcactga 180

ggagtataag gattttcttca ttggggccagt ccacgtggaa gacgtcgcat tagcccatat 240  
cacgctgttc gaaaaccogt cggcgctccgg gaggcacctc tgcgtggagc ccattctgtca 300  
ctggagcgat ttcgctgca aagtcgccga gctctaccct gactacaagg tcccaaaatt 360  
ccccgaggac acgcagccgg ggctgg 386

<210> 9090  
<211> 399  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-059-Q1-E1-F11  
<400> 9090

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catttagtgt ttgtgccaag tagaacctat aggataacct atgatatgag ttgatttgat 120  
tctgctgaaa aacagaaact ttgcgtcac gagaaacaaa ttgataaatc acagaaacga 180  
gattttgcat tgattctttt tgcttatgtt caataaacia attgtttagg acgtcctatt 240  
ttggtaggat ttttaaagtt ccataagttt gcgttagtta catattgcta cagactgttc 300  
tgtttttgac agattctgtt tttcgtgtgt tgtttgctta ttttgatgca tctatggcta 360  
gtatgtatgg gtatgaacca tagagaactt ggaatacag 399

<210> 9091  
<211> 389  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-059-Q1-E1-F12  
<400> 9091

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aagggccaaa gagcaaagca gcagatctga tcgaggggaa caaaatccct agaatgcctc 120  
tattcccaaa ggggcctggc acatctctcc atctcatctc ttccccgcct cttctccac 180  
ctccggccgc tgccgcagcc aggccatcgt ggtggtgccc caccagaca acctccttc 240  
tccaacacca tcatgcctc cagctaccac gccatcagca cctgccgctg caccattaac 300  
cgtgccacca gtcaccgc gccaccgat caccggtggg ccaccaacca gcgcacctcc 360

ctcacctgc tgctcatctt cttctcccc

389

<210> 9092  
<211> 339  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-059-Q1-E1-F3  
  
<400> 9092

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caaggaaaac aagttgagtc agtatgcaaa aaaaatcggg ccgcccacaaa gattcaaacc 120  
taacttagcc gttaagtcaa ggccaaagcc ctccaaacag gccccacaaa tcgactccaa 180  
ggccattctt ttaaaaagtt cataacggga aaaacctggg ttaaacacaaa ttaaaccccc 240  
ttgcacacaaa tccccttttc ccaaccgggc ttaaaaccaa aaaggcccca accaatgccc 300  
cttccacaaa tttccccacc ctaaatgcc aatggaacc 339

<210> 9093  
<211> 310  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-059-Q1-E1-F4  
  
<400> 9093

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gttccgccga cgctcatcaa gggccgctgc catgtttcca acctggatat ccggaacttc 120  
ctggtcggca tctatttttac cgtgaagggc actatcaatg aagggtccat attctgaaac 180  
cttcccggcc agaaaaaccc ttgtttctcc cagccgtggt tgtttcaccc tgtttccatc 240  
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cggctttcaa 310

<210> 9094  
<211> 438  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations



<223> Clone ID: LIB104-059-Q1-E1-F5

<400> 9094

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atatgtattg catcaataat ctgctagtta ctgggtgtgtt gatgttggct cctcggagcc 180  
atttggtgga cgacattgac acccaaaaaat ttgaggagtt ttatgatttt cttgacaaat 240  
gggtggcaga tcagcctcaa tctagcagga caagtgggtt cccctcaaag gagaagccag 300  
gcaggggagaa agcaaagagg aacaaaagta agaagagtgg cgccattcga aaggcgtaca 360  
tggtttcatg atggaggggtg ctcagggttt gccgttgtcg gtgtgtttgg cangagtgtc 420  
attgtgttgt gcaagtgt 438

<210> 9095

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-F6

<400> 9095

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atcgagctcg tctcccgtc cgccgccctc atcaaccaga aatgccatgt caagaacaag 120  
gatatcagga agttcttggg cggcatctac gtcagcgaca agggcgccat caaggaggag 180  
tagagagccg gaaaccgtcc cgcccaccag aagccgtgtt tctgcctgcc gtgtttgttt 240  
catcgtgttt gtgtctgtct gtcgtcgtcg tcttcgtgat tttgaacttt ctctagactg 300  
aattttgtag cggaggtaaa tttttaggga tgtgccgtgg aacatgctat ctttattgtt 360  
atcctgcata tcgtcgccgc cgcgagaaac ggtgcgacgc ttatctagcc ctaaaggctg 420  
aagacatgga 430

<210> 9096

<211> 474

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-F7

<400> 9096

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cacgctgcca cagccgaccc gagggccggt cagccctcgg aactctcggg gccggcatgg 180  
gtgaccgggc agccaatgac ggccccggag ctggaatgga tgatggagtg catgatgggg 240  
tgctggacga cggatgatgg ttgcgtattc ggggtgcgtgg ccaagcccc cgccgacatg 300  
ccgctctgct ggttcgccta cgaccagacc tacgttatgg gcatggtaa atgcgccttc 360  
acgcctcac cgccagcacc ggcgccaccc aagccgcatg ccccgccgc ccggccatga 420  
cacgtaacg atcgagacct ctacctagtc gccgacaatc accatgcatg catc 474

<210> 9097

<211> 467

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-F8

<400> 9097

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tagcttagcc tctcctgta ctgcatgcca tggcgatgct gaagaagaac acgagctccc 120  
tgagcttcgt catggctgcc ctcatgggtg tcatggctgc cacccttctc tactcatgcy 180  
acgcccgcaa agtgaaggat aagcccaccg ctttccccgt ggccggggaag tgcttctcga 240  
ggtttttcgc gaactgcacc gagccgcggt gcaagaagtt ctgctgccag ccactccccg 300  
gagccgtctg tatcgacaaa aaccattggt gctgccctat tgcttagtta taagcgccgc 360  
tgaagcagtc aggctaagaa atactagtta aaggtggcaa taagtaatat tcgtacactt 420  
ccaaatatat actaccctg tttctaaata taaggctttt ttgcagt 467

<210> 9098

<211> 311

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-F9

<400> 9098

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 cttttcataa ccaagacttg gtaacaacgt acggagtacc tcgcctaatt tttattttgt 120  
 ttctttcttca ttggtggatt tccatcgtgt ctatgagcac aggccttctgg attttgatat 180  
 attctgcatt accatgatgt acttatttgt actttgacac tttttctctg tttaatgagt 240  
 ggttgtgtgc atcgcttgat gcagaggcag ggtccgttca taaaaataaa gatgttctaa 300  
 ttctttgaat c 311

<210> 9099  
 <211> 105  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-059-Q1-E1-G1  
 <400> 9099

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 tgccgacatc acctgngaag tggatgaatcc cctcacgttc gacaa 105

<210> 9100  
 <211> 371  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-059-Q1-E1-G10  
 <400> 9100

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 gaggagcagc gacgcgcacc aacaagcctg agagaatcgg aacctctcga cgcccgaac 120  
 tggattggat cagattaact ggaggaccgc ctcatattgcc ggtgaaaggc aattattctc 180  
 cttctgatgt gatgatgagc agttgatggc gactcaaaag accgcgtaat ctctgtagaa 240  
 attcggaaaag atatggctga gacgaaaagc agcgaggatt acctacctat ctatccattg 300  
 catgatgttg caaatccaat gtagtagtaa aatatgttct tcagttccac tgttaccaa 360  
 tgactaatta a 371

<210> 9101  
 <211> 398

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-059-Q1-E1-G11  
 <400> 9101  
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 cttcgtggtc cggttcccgg acgccatgcc gctggacaag ggcgcgcccc tgctgtgctc 120  
 cggcatcacc gtgtacaccc ccatgaagta ccacgggctg aacgctcccc ggatgcacct 180  
 cggcgtgctg ggcttgggcg ggctcgggtca cgtcgccgtc aagttcggca aggccttcgg 240  
 gatgaagggtg acggtgatca gctcatcgcc ggggaagaag caggaggccc tcgagaggct 300  
 aggcgcgcgac ggcttcgttg tcagcaagaa cgccgacgag atgaaggctg cgatgagcac 360  
 catggatggc atcataaaca cgggtgtctgc aaacatcc 398

<210> 9102  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-059-Q1-E1-G12  
 <400> 9102  
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 caaaatatgg aaacttcgga caagtttggt gatcatagga gcattgagac gcagacaaat 120  
 ccaattgatc gttctatagc actcttactt tttcatcagc catcagacca agtggttgga 180  
 gctgttgaca atcctcgcca ctaaaatctc ataacgagaa ccacaaggcc tatgctaaaa 240  
 actaggttgg ttaatgttgc gaaaattact ggagatggct cgtggaaatt caaggatcgc 300  
 ctttattcat atgtaatcat catctccgtg aatgcaggag caattgtgaa tgtttatccg 360  
 atatggtatg gtatgcaccg ttttaatcgt t 391

<210> 9103  
 <211> 249  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-059-Q1-E1-G2  
 <400> 9103

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ctcatgttcc atatggcatc tgccataatt catgggtgtc tcttggtcag ctgcctetca 120  
agttcgatcat cacgggtata tgttgctcct gggatgtgag atcttgcat atttactgat 180  
tccacgtct acactggtct tgttctatgt tactcattgg taagtttctt attgtcattt 240  
catatattt 249

<210> 9104  
<211> 153  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-059-Q1-E1-G3  
<400> 9104

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tgccctggtg ctacttcatt agtcacgctt tatgaagtat tgactcagga gttactcttt 120  
cttgggttct accttatttg cttttaatat gac 153

<210> 9105  
<211> 487  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-059-Q1-E1-G4  
<400> 9105

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agaatttctt tctgctactt cttgagcgtg tgttggtttt tcccttgaag aggaaaggt 120  
gttgcaggaa cgtagagata agtatttccc tcagttagag aaccaaggta tcaatccagt 180  
aggagacaac acacaaatca ccgaatacct gcacaaacaa tcacacaact tgcacccaac 240  
gcgatatagg ggttgtcaat cccttcacgg ttacttgcaa aagtgagatc tgatagagat 300  
aggtaaacga taagggtacat atttttggta ttgttggttt atagatcgga aagtaaaata 360  
ttgcaaaata gtagattgga aactaatatg atggaaaatt gacctgggag ccataggttt 420  
cactagaggc ttctctcaag atagaanata atacggtgag tgaatgaaat actgtcgaga 480

aattgat

487

<210> 9106

<211> 359

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-G5

<400> 9106

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cctgccctgc tgctacttca gtagtcatgc ttgaataata atggtctcag tattaatctt 120  
tcgcaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
aaaaaaaaaa aaaaaaaaaa aaaaaaaggg ggcccccaaa aggttttaaac ttttaatttcc 300  
gtttaaagaa aattaaaaac ctttcaaaag gggccaaaaa attaaattaa aggggcgtt 359

<210> 9107

<211> 471

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-G7

<400> 9107

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ttatcaagag cttcattcac aacaaactca acaagaactc gtgagatagg ttagtacaaa 120  
ccaatgcaaa accttattat tttttactat aacaaatcac tagaattatt attcaacatt 180  
taatactaaa ttcctctgca tattttaatac tcctatcctc aaatagaatc attaaacaag 240  
caaacatagc caaacaatgc aaacataaca gcaatctgcc aaaacaatat agtctgtaaa 300  
gaatgcaaga gtaacaatac ttccctgact ccaaaattat gaaataaaat tcccactgta 360  
ataaatttat cagatcttaa tatgcaaaaa gattcaacat tataccattt cttacttttc 420  
tagggaattt ttgcaacagc ggtaaacttt ccattttcaa acagcaacat g 471

<210> 9108

<211> 417

<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-059-Q1-E1-G8

<400>       9108

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cccgtttcgg gctgcaacgt tcatgttgca gacttttcag acgatgagta aggtgccttt   120  
aggteggtgt tctatactca gtgatgccgt tggagttgat ggactcactt atgttgcaag   180  
ccttccactg ttatcgttat tagatggcct taagccatat ttattgtaat aagttctctt   240  
ttgagacact cgatgtaata agtgtgtgat tgctactctg ttataaatcc ttcaagtact   300  
gtgtggtgtc agcattttctg atccagggat gacaccagag cacagagatt ggaccgtttg   360  
aggtccactc gctacatcat tgcatatccc ggtacaccgc cataggcatt catagag       417

<210>       9109

<211>       287

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-059-Q1-E1-G9

<400>       9109

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gcaacaagac tttctgcccc ctgtgacgaa ttgtccagac cagttgcata aatacatctt   120  
atggcacgag acaggtggat tgtgcgttta ttttcataaa tatatagacc tgtacgtctg   180  
aaagtgttgt tgacatttca tggcgttttt tggggcaaata acatttcatg tttgtatttg   240  
tggattgcat cagttccttt gaatcctatc agttgttgct cttgctt               287

<210>       9110

<211>       172

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-059-Q1-E1-H1

<400>       9110

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taacaatatc ctccttggat atctatccct ttcgacctag tttcaaagt tgctttaaat   120

aatcccatgc atttatatgt tatgaccttg agcatcatag gtctttctct ca 172

<210> 9111  
<211> 199  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-H10

<400> 9111

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ttaagtgtct ttttaagttt gtttttgacc tcgccgttgt agatgggtccc ttttggttca 120  
aaggaaaaca aaaaaaaaaa aaataagatt aacaaaaaaaaa gaaacaaaaa atagaaaaaa 180  
aaaactggac atcaaaaag 199

<210> 9112  
<211> 400  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-H11

<400> 9112

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cgctggagtt cacgtcggcg atggagaaga agacattcac ggtgaccgtg agcagcaggg 120  
gaggcgacgc cgacgccggg cagctggcag aggggagcct acgctgggtg tctgaagatc 180  
acgtggtgcg gagcccgatc atcgcggacg ccagggttgt cccgacatga ttctgtcagg 240  
cgttcgttgt actcagccag cctgggttagc ataagcacia gtatccatac agttcacaac 300  
atggagacat tatcgttctt cccaactagc actactcctt gaggtcccga ttgcaaacad 360  
gcaatcacac aaatagggca cttatcaaag gaagtcaactg 400

<210> 9113  
<211> 371  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-H4

<400> 9113



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 tacagatgat cgtccagggtg attgcgacgc aggaggtccc cggggtggag gacctcgacg 120  
 ccaccgtcta gaggtcgccg aggtggagga cgacgccacc atccggagtt cgtcaagggtg 180  
 gaggacctcg acgctttgta catacatcta gggaagtggc ctggttaggt tgggtggtgaa 240  
 acgctagga aggtaccaac cttttgttga tggttgtgtg tgtcctcggg atctcttcga 300  
 gttgagatgt tgaatgttgc atccatgaac actgcaagt ttaagatggc tctgtgaaat 360  
 ttattttgca c 371

<210> 9114  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-059-Q1-E1-H5  
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 caaataaaga atgagttcac agcagtacct aagtggatgat ttattttctt atactaacgg 120  
 agcttacgag ttttctgttg agttttgtgt tgtgaagttt tcaagttttg ggtaaagatt 180  
 cgatggacta tggaatgagg agtggcaaga gtctaagctt ggggatgccc aaggcacccc 240  
 atggtaatat ttaaggacaa ccaagagcct aagcttgggg atgccccgga tggcatcccc 300  
 tctttcgtct tcgtctatcg gtaactttac ttggagctat atttttattc accacatgat 360  
 atgtgttttg cttggagtgt taatttaatt ttattttgct ttggttgctg tttgaataaa 420  
 atcccaagat ctgaaattcc taaatg 446

<210> 9115  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-059-Q1-E1-H6  
 <400> 9115

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 ttttgataca ctgccccctt atgttgagca gatgcggatt atatttaggg agattaagat 120

gctcaagacc aaggaatgca tactgaaggc tgccaatgat acccttcaag aaaggcccta 180  
acagataaat ggaagcatct attgggtggt actctcactg cttagcaaag agaatgaagg 240  
gtcaacattt acggtcatgc tgcccacgct tcggaaaaaa ggcaaaaatg ttttacggct 300  
caagcatggg aagtatagac caaagaatgt ggtttacagt ttccctattt tgttggatta 360  
gctaattgtg tgatttgt 378

<210> 9116  
<211> 444  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-H7

<400> 9116

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ctgtgggccc cactacccat cagggcgcg caggggcctc tagcacgcct tgggtgtcttg 120  
tgggccccac aggcctcccc tctcgcaatt ccttggtctc caagttgtct tttgggcaaa 180  
aaaatctcca aaaagtttca ctgtgtttgg actccatttg atatggatat tctgcaaagt 240  
aaaaaacaag caaaaaacaa caactggcac ttggcactat gtcaataggt tagtcccaaa 300  
aactgatata aagttgttat aaaatgaata taaaacatcc cagaatgata atataacagc 360  
atggaacaat aaaaaataat agatacgttg gagacgtatc acactgccag aggcattcat 420  
atatagtcct aatgttctag atat 444

<210> 9117  
<211> 347  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-H8

<400> 9117

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actttggtct tcagtttcaa agacactacg ctttcttgcg atacctcacg caaaaccatc 120  
aggccttctt gtctcttagt tttcaggacc taacaatttg tggatcatca ttgttaataa 180  
gctcatgggc tgggggtgcc acgaaacaga catccgaggg atgaaaactg gttgagattg 240

tcggtgtgta tattatatta ttgtgttgca tgtataagtg aatctcatca ccaagtagtg 300  
gtgatgaaat gtcacctgtg tggctgtgta ctcgaaagtg gaaatgc 347

<210> 9118  
<211> 406  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-H9

<400> 9118

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cgactgaaga tatccatgga gaggatagcg ctactcaagg cagccaaacc taagatgccg 120  
cccgcgaaaa ccgagcaaga ggaagaggag aggaagcaga gcgaggagt ggacggattt 180  
gggaacccca agggccctc cacgctctcc aagctcacag cggaggaagc cgagcacctg 240  
gccctccaag cagccgtgct ccaggagtgg caccagctgt gcaaggagaa agtcatgaag 300  
gcacagtgag gcttggcttg cgctccgct gtataatgtt gtacctgct tttcctcgag 360  
ccacattttg atttattttt ttcagccgtc cgacattttg attttt 406

<210> 9119  
<211> 409  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-A1

<400> 9119

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ccatgcatgc aatgtggaac atagaacgca tccaagggtt cttcaaaggg ttacatgctc 120  
agatactaaa gacagttctg agctccgcat tactgctgat gataaaagag aagatttcaa 180  
agttcacttg gatctcgctg cttgctctgc ggcgatatct ctttgtttct cggaagaaaa 240  
tcaacagtgc agagttgtat catgcatatg tcatacctga gaaaactagt ctaatcgctc 300  
actggtattt caagatcgta ttacaccaca tagtagaagt acagaatcat aacatcacga 360  
tcaacttgag atccccatgg aatgttctga aaaaaattgg tcggtttttt 409

<210> 9120

<211> 194  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-A10

<400> 9120

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 gcttgtgtca gactcgatga ttagtaggat caatttcttg tctaggacgg gctcggtcatt 120  
 ggatccgagt ggggactcta ccagcccga ttcagcctca aagagtggcg gcggttcggtt 180  
 cctcaatagg ttta 194

<210> 9121  
 <211> 303  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-A11

<400> 9121

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 gcagattcgg cgtgggtgacc atgtgcatcg ggtccggcat gggcgcgccg gccgtgttcg 180  
 agcgggggga ctcggtggac gagctctcca acgtgcgcca tatctagtcg cacaatttcc 240  
 tgtccaagga tgctgcagag tacacgcggg cgtgaaacga agtccatcag cctcacatgc 300  
 agc 303

<210> 9122  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-A12

<400> 9122

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 gcgacacca aacggtccaa ggtacgtgcg tgcgttctct gcgcgcgcaa cgggctgccc 180

ttggttttatc gcgtgcattg acgccaccaa ctttttgtcc gcagaagaag agctggttct 240  
cctgcaccag ctgccgattc tgatgccgta gctgcttgcc gtcggtggtg agagagatcc 300  
gataacttcgc cgcgccacga ccagatgcac gtactcggcg ggaggcgacg gtggaacttt 360  
tggcgatcgt ggtgcttctg accctgctcg gtcgccgcat ctcacgtgca gaacatcatc 420  
cat 423

<210> 9123  
<211> 404  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-A2

<400> 9123

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tccaatcaaa cctatataat tgcaagctaa atgccaatcg tttcattata caatgatcgt 180  
tcttgatata ttttaatttt ccataggaca tttcctagta gcaaggattt tcatgtcata 240  
ttttggagta atttgattat caacttcgtc tactcgttgc gtatgtgaaa ttattgccct 300  
atattagctg tagctagaca cccgctccag ctgcaaaaaa agaagtgtgt gtctatgcat 360  
gaaatgtgaa tattgggtag gttctttgaa gcaaaaaaaa aaca 404

<210> 9124  
<211> 400  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-A3

<400> 9124

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tgacttgac tccaagtcct ctggatcacg ttcgttccaa aaatcacgtt taattcctgc 180  
tcattcctga gtaggtaa at gataaaaaca gaatttttga tgtggaatgc tacctagcat 240  
aattctcaat gtaattttct ttattgtggc atgaatgttc agatccaaat gattcaaaat 300

aaaagcttat aagacataaa aatagtaata ctcaaagcat actaacaat aatcatgtcc 360  
tatcaaaata acatagccaa agaaagctta tccctacaaa 400

<210> 9125  
<211> 350  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-060-Q1-E1-A4  
  
<400> 9125

gacggggggg gattcaaccg cgatagcttc gcgatccgct cacgctatct gagatttgga 60  
cgcggggtcat gcctgcagct cttgcccata tggctctcgt tttgcattca cgcaccggca 120  
acatgaatgc cgtcaaggca cttattgctg cagactactg tgcggtcaag gtttagctcc 180  
ccatgaactt ctagatgggt gtatcatata aaatccctga attcatcaag atgaaccccc 240  
ctggtaatgt tcctgttctt gatactcttg atgctaattg ttttgagagc agtgctatta 300  
catgctatgt tgctcgcca aacgggtgaca acctgtttta ggggtgtctc 350

<210> 9126  
<211> 371  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-060-Q1-E1-A5  
  
<400> 9126

tgttggtgctg gtggaccatc gcaggatttt gctctcgagg aaagaggcca tcacaaagca 60  
gggtatacatt tggattatca agtaacagtg tgggtttaca catactcttg gacaagtgcc 120  
ctcggattca taagactctc atgagaagaa agtaaagcct gtctgaagaa gctgctgctg 180  
cctaattgtag ataacatagc cgttgggttg gaagtctgca tcaaatacaca ttttcttatt 240  
caaggggttg gaggagatgg tggtgtttta attcttttagt tggtgatgat ttctctttgg 300  
ccccagcagg ggatggggat acttggtgcca tgatccaaaa attgtcaatg tgggttttgg 360  
ggggttgctt t 371

<210> 9127  
<211> 399  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-060-Q1-E1-A7

<400>       9127

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cgacgggcg gcagcactgc ggttggcccc agtcgagcgt tacgtcagac gggcgtaaga   60
ttaggggaaa gcaccgcgag gggaggaggc agcgtaccta ggatggcgag ggatggctgc  120
tgcgatgcc a tggccgactg cgcgagaagg tctcggcgac cggcgagag atcacaagcg  180
gagctgcggt ggaggcggcg gcgcggcgag gggactttgc tggatgcggg tggatgcctat  240
gtcatgcctt cctcactgac acatgggggt cattgggttg tgggcctcag tttttgtag  300
ggaattgtgg gccttagttc gtagctacag aaacgggata aaaacgtcgg caggctaata  360
aatagattgc gctgcattcc tgggaaatgg gccagccca                               399
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<210>       9128

<211>       379

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-060-Q1-E1-A9

<400>       9128

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cgacggagcg aaaaaggaaa agcaagacgg ctccatacgc cggcggcaga aagtggaagc   60
tgacaccaac gacgaccttc tgtcggactc gatcaagatt atcaacagtt tctgcccag  120
gccggtctcc agcatgcgtc tgagtacgga ctcgagcagc ccggattccg ccgcgaagag  180
caatggcggc tcgttcctcg atgggttcaa gtccgtggtg cggaggtcac cgagcgcgcc  240
gagctttgcg gactcggaga acggcgccgg ggctccatg tggtcgagct ccaagtggac  300
cttcaaccac gagtccttca cccgtccgtt gtcgatggc ctgoccaaagc cctcgcccgg  360
ccgcaggatg aaagctgct                               379
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<210>       9129

<211>       399

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-060-Q1-E1-B1

<400>       9129

cgacgggcat gcatgttagc agaccatttc acaccactga tgtggcacgt gcgtcaagaa 60  
 tcgtacacga gctccccaca cagatcacga tcagttcagg acgtgtcggg gcacgagcca 120  
 cttcgacgca ttgggaggga ttcattgcgta cacatgcatg tgtgtgtgcg caaacgggtat 180  
 catgcatgtc atcccagagc atgacctata tatataccgt attacaagca aaaaaatccc 240  
 ctccctaagtc aaattaacct ctcttgttgt caggcaaaaa gtactgatgg accaagcggg 300  
 cccacagatg gaaagcatcg atatcgctga taacctctta agtgggtgcc agaggacaac 360  
 caccaccgct ttgcatgtgg gccgaacata tacatgttg 399

<210> 9130  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-B3

<400> 9130

gctcgacggg aagttacaga atgaggacgg ttcattggtc ggatcatggg gtatttgctt 60  
 cacatacggc acgtggtttg ctatagaggg cctatcggca gttggacagt gttacaataa 120  
 tagcacctac atccggaagg gttgccagtt tctattatca aagcagctaa ggaatggtgg 180  
 atgggggtgag agtcatcttt catccacaac caaggcatac acgaacctag acggggagaa 240  
 atcacatgta gtcaacaccg catgggcaat gttggcacta atgaaagctg gacaggccga 300  
 acgagatccg tctcctttgc acgaagctgc aagacttatt atgagcatgc aacttggcaa 360  
 tggtgacttc ccacaggagg aatga 386

<210> 9131  
 <211> 365  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-B5

<400> 9131

tcgacggaga ggattacaga ctgttctgtt ttagagagat tctgtttttg atgcatagtt 60  
 tgcttgtttt gatgaaacta tcgattcata tcagtgaatt aagccatgaa aaatttatat 120  
 tacagtagac acaatgcaaa aacaaaatat gaattggttt tcaagagtag ttagagtagt 180



gatttgcttc attataactaa cggatcttac cgagtttttt gttgaagttt tgtgtggatg 240  
aagtgttcga taatcgagaa tgtcttgatg tgagaagaag gaagagaggc aagagctcaa 300  
gcttggggat gcccgaggca cccaagtaa atattcaagg agactcaagc gtctaagctt 360  
gggga 365

<210> 9132  
<211> 390  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-060-Q1-E1-B9  
<400> 9132

tcgacggaag gaaaattata ctcatatcaa attcgtattt gaacaaataa actatggaat 60  
tatgagtggc ataatgttta gottcaaggg tggagtgctg gtaatgcatg acatagcaag 120  
tacgcagatt gtattccatg taaaagattg tagtctatgt aaaagctgga aatgacactt 180  
tctttctata taatgcagtg ttcgttgccc acacatgatg gaagagatca cccagagaaa 240  
tactagtcac tcaagtctac agttccagta ttttgagaca ggggtgtcca ccctaaaaga 300  
atattgagaa aatctggaaa tgacactttc tttctataca gcgcagtgtt cgttgccgag 360  
atatagatgg aagagattac acagagaaat 390

<210> 9133  
<211> 411  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-060-Q1-E1-C1  
<400> 9133

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cgtctagcat cattgatgga catgtggacg tgtgtctacg gtgtatatgt ctttgggtgga 120  
tttgcttata tcttgtagtc ttccgtctac gttcgtgtgt cttcaagttg gatccttgcg 180  
atatacgcta ctcttcatcg cgggtggtgt tgttctgggtg cgttagtcct atgggtttta 240  
gcacgtttac ttctgactg tctactgcaa caagttttgg ccagaaaagg cgatgacgac 300  
agtgcgcctt cgggttcgctt caatgcttat agtcgtcgct aggtgatctg tgaatctaga 360

tgtattttttt attacttttta atgtttgttg tactatcatg atagaataaa a 411

<210> 9134  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-060-Q1-E1-C11  
 <400> 9134

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 agacagaaga gtcagtgcg gaagcagtag agtttggtgt cgttcttata tcttgctgct 120  
 gaatatcact actacttgcc attagtgcga tgttgctgac tttcaatttc ttgtatcctg 180  
 gaaatgcttt ctaagtacat aatatcatat gcaaacctta aattgtgtgt gcaaaaaaaaa 240  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa acaaaaaaaaa ataaaaaata 300  
 aataaaaaat aaaaaaaaaa aataaaaaat cacaaaaata taattaaaaa ggccgctcatt 360  
 ataaaaaaat catgtcaggg aaaaagccag gggtaaac 398

<210> 9135  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-060-Q1-E1-C5  
 <400> 9135

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 caaaattctt catagacaga gacatctgca tgcttgccggg taaatggtta agctttgtat 120  
 ttgacatcca tcgtgcaggt cggcgacatc aggaacattg taccggcaat ggggtggggaa 180  
 aggtccacat tcatgggtcca tataggctgt ccataacctt ctcacgaat ggggtgttaaa 240  
 agggttcgat ccagccatga ctctccggtt ggcgtggaag gaatgacaaa tccagatgcc 300  
 gtttaggaat cgcaaaccga tggatgctcg caaatggttg gaggaagtt tgtccacggc 360  
 aacgggtctgt gttccgggac atgtgcctgt t 391

<210> 9136  
 <211> 388  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-060-Q1-E1-C7

<400>       9136

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tcgacgggac acaactgtcat cttctgccaa caattggact cttccaacg ggggcggcca   60
cgcttcaggc tactcaaagg aggctgaccc aaccacagct tgaaagctga atcactaacc  120
acaacatcaa catccaacct cttttgacat ttgcaatccc agttttcaca ttaccatcct  180
ttcccacctc tttttgcttg tgggtgtttc ggagtctgta gctatttagt actttctatg  240
tcgtgggcta ccagaggctc cctagaggct gcaaattttg tcgctgagta gaaccaaggg  300
aaccgactga ggggtgtccc agtttctcct gaggctatat gcgtgtatta actgaaggcc  360
gtggaaggca tacctcgtgg ggagccct                                     388
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<210>       9137

<211>       320

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-060-Q1-E1-C9

<400>       9137

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acctgcttcc cgctgtggtc accaagtaca aggatgagct gaaccagcgc agcacgaaca  120
tgtacgtgag tgttgacgac ggctgctct cgctcgccgt ttcgccgaag tagatcaacg  180
acttattata tgttaagatg ccggatcaga ccgtgtatct tcgcacacac cggacgcaaa  240
acgcaaacat gtgtctcata cctcactcct gcttgggtaa tgtttctttc cgtggcctcg  300
cgatcctccg cagcgttccc                                     320
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<210>       9138

<211>       424

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-060-Q1-E1-D11

<400>       9138

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tttcaacaaa aataattatc ctcttgtata attccattga attataaaaa taatgtgcca 120  
 aggtttgcct ttaggatgtt tacaatgctt gttggtttgt acggtgcagg acagaaactt 180  
 tggctgtagt gcgcaatfff atatfffiffa ctggaacgtc aaacggttct gattctfffft 240  
 gcactgcctt tctgtcaaaf tgtttatfff cctaatfff gtagaatfff tggggcacaa 300  
 aaagtatggg gaatgttcag attgctacag actgttctgt ttttgacaga ttccgtfffft 360  
 gatgcatagt ttgcttgttt tgatgaaact atcaatffct atcagtggat taagccatgg 420  
 aaaa 424

<210> 9139  
 <211> 385  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-D2

<400> 9139

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 aggtgcggcc tccctaccaa ttttgattcc agctattgct atgcattagg ctatgggtgct 120  
 ggtgctcttc tccaatttgg caagacagga cttatttcgt cgggttggtaa cctggctgct 180  
 cctgtggaag aatggactgt tggaggaact gcactgactg cgttgatgga tgttgagagg 240  
 aggcattgca agaacaagcc agtgatcaag aaggctatgg tggaacttga tgctgcgcca 300  
 tttagaagt ttgcctcgct gcgagatgaa tgggccagca agaaccgata catcagccct 360  
 ggtcccatcc aattcagcgg gcctg 385

<210> 9140  
 <211> 179  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-D3

<400> 9140

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 tccaagtcac cgttcagcgt catgacatgc aatcagctt caatcttgat ctctggacta 120  
 aagtcgggtt gtcacggtaa gataaaactg tactatattg attaatgcaa acatcaggg 179

<210> 9141  
 <211> 359  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-D5

<400> 9141

tgcacgggcg ctttagttcg cagctggtcg ggatgatcaa agcctgtata gtcgtggggg 60  
 ctaatccaga tcgcttcgat catgtcgtgt aagatcagct ggcgggccgt cgtgtggtaa 120  
 acttgtcagt gggagtcttc agacgtggcc tctggtaagc ctcttcgagc atagccatct 180  
 ttcgtcactc ggagatggag cgatgtggtc aggttttata ggacttcac gcagtcacga 240  
 aactgactg gagacttagc tgcatatagt ccttgcgac ctggcatagc agttgacgtg 300  
 tttgacgtc agcctaaaca gctcacttgc acaacatata acgctgcact gctctcggt 359

<210> 9142  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-D7

<400> 9142

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 gtaatccggc acgtctgaac gatcgctact ggcactctggt gcgccacgta cggctctatgc 120  
 agggagtggg catgtatgtt ccggcatgag tccacgtca cattagtaga atcaaagagc 180  
 cacacacact atggccgatt gcattctgta ggaatactgc cacgtcgtgc taacggccgg 240  
 agcagttggt tgcaacctga acggatggac tcaactgttg atggagggtta cgaacgtcag 300  
 gactctaata atgcatttag caaacaagta gtggctgaag ggcctagtga ataggcgaac 360  
 cggcggagca attcatgat atccgtgctt gca 393

<210> 9143  
 <211> 400  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-D8

<400> 9143

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ctgaacccccg caaggccaaa tgggcggcca gtcctgattt aacatacgat gccccctaag 180  
tgaatcacct catggaccgc caatggtctg gactatggat ccgcagccaa tctattgatg 240  
ctgcaaaaat gcatcacaaa catgattaag aagaacacct gtctcactaa catgattcag 300  
gtgatgctct tctgccggat tcttcctgc caactccgat cctcccatat gtgggagttc 360  
aatctggaat atcctccgac actaaagcac ttcttcggca 400

<210> 9144

<211> 330

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-D9

<400> 9144

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gctcttatac aaacatcatg gtgactactc ctgatgacat gctcttagct gagcgtttga 120  
tgaacgataa atagggccaa tattaacaat gtttacttga tttgagaggc acctgtatga 180  
atttgtcagt acgacattcc attgcctttc cacagttttg gcctcttggg aactagaaaa 240  
gtaaacatgt agctcataca cgagatagat aacctgtatg taacattctt tccgtggcaa 300  
tgaatatatg gcaaggtttt ctgtttgaaa 330

<210> 9145

<211> 386

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-E1

<400> 9145

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caacagatat gctgctgtca gcagtcctct ctaaataagac actgcaatta tcgtataagt 120  
acatcattgc tgctgtcagc agtgctctct aaatagacac tgcaattatc atgtacatca 180

ttgctgctgc aatgaaccat taagaattat ttaaaatcta gcctaccatc tgcgttgctg 240  
tcaacagagg gttgaggcgg agttacaaaa tctgtatgag aaaccgaggg attgtccgag 300  
tcagcgacat ctttgttatc ttcagagctg tcagaagcag ctgagatggc gtcacctgat 360  
tctgaatgtg ttctgtccac atatgc 386

<210> 9146  
<211> 251  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-060-Q1-E1-E2  
<400> 9146

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tatcactata ggtagacata tgtgatgtga gcagtgcgcg gtaaactgat actgtaatta 120  
tgatgtagct cagtgtagct gctgtgaacg tctcaacatt ggtttttatc taccctacca 180  
gctgcgttgt cttcaacagt tggttaatgc ggttttactc actgggttta agtagcagaa 240  
ggattttctt a 251

<210> 9147  
<211> 389  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-060-Q1-E1-E3  
<400> 9147

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gattttgtgg tgtggtcaca ctaaacaat catatgaaag gcttggttcc aagtcactgt 120  
acgaggctca tgggattgaa aacctggtgc tgccaactag agactacctt tatgcgccgt 180  
catttgacaa ctttgcaag gctgctgact tcatccacag aaatgcttca tgtggtgaagc 240  
tgacttatgt tcaactgcaa gctggacggg gacgtagcac caccgttggt ctttgctact 300  
tgggtgcaatg caaacaatg acacctgctg gagcttttga acatgttcgg tcatgcatgc 360  
caagggtggt attggcttcc gcacaatgg 389

<210> 9148

<211> 396  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-060-Q1-E1-E4  
  
 <400> 9148  
  
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 agaagcacgc caagaacgag cgaggggaca acaaccatgg cgcggcctcg gagaagcggg 180  
 tcaagacgct gccggcgctc gaggcgctgc cccggaacga gcccatcggc ggctacatct 240  
 tcgtctgcaa caacgacacc atggaggaga acctcaagag gcagctcttc gggttgccat 300  
 ccagatacag agattcagtg agggcgatca ggccggggct gcccctcttc ctctacaact 360  
 actccaccca tcagctccac ggcattctcg aagctg 396

<210> 9149  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-060-Q1-E1-E5  
  
 <400> 9149  
  
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 attagcgcag catgtcggcc cagaataaat tctgctgctt tcgctcattg atggacatat 180  
 tggggctggt tcttgcttga ttggaagatc aagactatgt tgcaactggt gtttagctgc 240  
 aactgtgtct catgccaaact cagtcacaaa gtctcttggt tagcgctgcc tgctcgttaa 300  
 aaaaagataa cgaatccggc aggtgctcta ccatttgaat aaggaaagtc tagagaatgt 360  
 ttgcaaaaat caacaattca acaaaa 386

<210> 9150  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-060-Q1-E1-E6



<400> 9150

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gaagagaatt atcatcagcg caagacacgg atccaacgga ttcgacgata ttgggctgaa 120  
caatgggttca aatgcaagtt cgtgacctcag gaatatgctg agaagaatgc tataaaaagt 180  
ccttgggggtg atattctcta tcgaggcctt catcccaaga acagagctga agctattgca 240  
cagggtttct atcactgtat ggtccatgga cctcagcctg aaaatgccta ctcaacatca 300  
ttgctctggg gtcgtgacga caatctcttc aagcgtaact ttcagcatgc aaaggcatcg 360  
gccaaagaat acaagaagtc attggga 387

<210> 9151

<211> 299

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-E8

<400> 9151

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ccgcatctc cttgggcctc actggagcat acgttgtctt gtcggttgct gcggacctga 180  
accagacctc gctccgctc aacgatatga caatgcagct caacgcgcac gtgagcgata 240  
aagtcggtga cgtgggtgaa cgcatgtga tgatcgctgt ctacgaagcg atcgacagg 299

<210> 9152

<211> 86

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-E9

<400> 9152

tgccattcga tagctcggtt attatgtaac aggccttcaa ttcattggcc gtcgattaat 60  
tgcgtagcca gtgggaaaac tgggac 86

<210> 9153

<211> 370

<212> DNA



ggatgcaaat aaatgaaatt aagaaagttg aagcaggact atcagtaaga gggaaggctt 60  
 gaagttgagg caactgtctt gtataacatt ttctgctttg tgtctgcaac tgttttctta 120  
 cttctaagct tatgttgtaa gacacctgct gtaaacattt gagtgagatc gaattactgg 180  
 ttcccatatg ttctgatgtc tattttataa atgtatacat aaactgttga tgcacaatat 240  
 ttgatctgaa aataaagtaa taccttcaca aaaagaaatt aaccaacagt aaaaccgtca 300  
 gacatgtttt ggttaccaac cgactcagat aaaattgacc acacttatac ctgaggggttc 360  
 cccgttgg 368

<210> 9156  
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 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-F6

<400> 9156

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 ctgtaatgag acagcaattt ttctcctta ctatcgctgt gaattgcgtc gcaaattgga 120  
 gaaattaaaa cacggcagta acactgttca tgcttactac caagagttca aatcttatat 180  
 gcatcattgt gacatagaag aatccgagga tgatacaatg aatagatttt ttggtggttt 240  
 gaaccatgat attcatgcaa gatttcagta tattcctcgt tgcattactg atatgtatgt 300  
 ccgtgcttgt acctttgaga gacatataca ggaggatgca ttgggtgact acaacaacta 360  
 ttattccagt tcatgctcac caccgccggt tg 392

<210> 9157  
 <211> 395  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-F9

<400> 9157

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 acctaatgtt tcctgtccac cactggaaga aacttgtcct ggacgttgat ccgtttgtcg 180

tcaatgacga cgaacacccat cagccccga ctacatcgtc atttctccgc aaagtacacc 240  
gcttaaggac acaaccataa aacaaccttt atgtaccagt cgcgggactc tcacattata 300  
ctttagtccc attcttcata ttacactgtt attcagccct taacgacaag tcgtctcgac 360  
tagtcatttt tcacagtaga cctccctctc tctaa 395

<210> 9158  
<211> 407  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-060-Q1-E1-G1  
<400> 9158

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ctttgtgctc gctactaaat tacaataat tgctaattaa aattggcttt gatatacctt 120  
gggatccggg tggattcact acttgagcac tatatgccta gcttaatggc tttaaagaaa 180  
gcgctgccag ggagataacc cggaagtttt agggagtcac ttatttctgt tgagtgcctt 240  
catatagttt aaaaataaca aaaataaaga ggggaaccca aaactttttc aaaaaggaaa 300  
gtgaaagtga gaaagacaag cattgttgaa gtgggagagc tccttgaact ttgttcatgc 360  
tcacggcaac tttgtgaatc ttgattacag aaacttttca acaaaaa 407

<210> 9159  
<211> 182  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-060-Q1-E1-G10  
<400> 9159

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tttgttgatc ataggatcat tgatacgag acttctccag ttgatcggtc gatagcattc 120  
ttactttttc aggagctatc atggcaagtg gttggagctg ttgatgggtc tcgctactaa 180  
tg 182

<210> 9160  
<211> 394  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-060-Q1-E1-G12

<400>       9160

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gcaaatggaa atctggaaaa cacacaggaa gtgcaggtga acccaacgag cttatctcaa  120
tacagggaca tccagagaaa gattgttgag tttatcagaa agagatacca tattctggaa  180
aaatgcttgg acattgaata tgccgtgata aaaacaaata ctctgttcc tgatgatctt  240
actgaacaaa atgttcctat gggacatagc ccagctgttc cagatatcag tgaagtgttg  300
agagaacttc cccctcttgt accaatttct gccaaagaag tggcttctga tggctcaact  360
gaccaggcac acctttccca tctttacaac aaga                                     394
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<210>       9161

<211>       363

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-060-Q1-E1-G2

<400>       9161

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tacatggatg gacaggtcat tcttggtaga gaagttgcag ttgtttttgc acaggagaac  120
agaaagaagc ctgctgagat gagaactaga gaaagtagca gaggtcggtc ttacgatcgg  180
cggcactctc cttccccaag ggggcggcca tcttaccgcg gccgaagcta ctcaaggctc  240
ccatcacctc ggcccgaag gcggaggttc agagacgagt ctccctcgcg ctcccgctcg  300
cccagcggat cgaggagtgc gagtccattg gatgggaagt acggcaggtc ctcacgaaga  360
gag                                              363
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<210>       9162

<211>       273

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-060-Q1-E1-G3

<400>       9162

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 ttcttgctat ataacatcgg ctttggtata ccttgggatc cggttggatt catgttcctg 120  
 atgcactatg tgccaagctt catggcttta gacagatctc tgccatagac atttcccgga 180  
 agttataggg agtcatttat ttccgtctac tgctttcaga ctctttaagt cacaacatgc 240  
 atgactatgg gaccccaaaa ctttttccgg tcg 273

<210> 9163  
 <211> 344  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-060-Q1-E1-G4  
 <400> 9163

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 ttattgatgg ttcttgctag tgtggtctgc ggatagcaca aatgtccctt gcatgtggcc 120  
 aagatgaaga agtggtggtg catgtggcca ggatgaagga taggttgcat ctgttatgct 180  
 tggtagcgga tcaaacccta gctatgctaa agactgtatg ctgctagcag tggaaccgta 240  
 tgtcatgttt ataagtatgt tgttggtgta tatcgctct atgattgggt gcatgttgga 300  
 gactggagtt taataaataa atacattggt catatgcctg atgt 344

<210> 9164  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-060-Q1-E1-G5  
 <400> 9164

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 tggtcggctt acaaagtgtt ttctcggtat acgcatgaa aatcgaattc gaaatggtat 120  
 gaccgtgcaa gttgagcatg ttttaatgta attgtgtaca tagatggcta attgtttcca 180  
 agttgtttta ttttataatg tgtgtactcc gcgactgagc tgtacatttc cttctgatcc 240  
 tgtattcata tgcgggcact atttgctcca tcaactaaatc tgaaaaatcg tacggtcggt 300  
 aggcggcgat tggctctggg aggcgtgggc ctacgataaa aattgtggag gccacatgaa 360

agtctgcggg ggcaaatcga ttggaatcag ggttggcaag gattcaact

409

<210> 9165  
<211> 397  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-G6

<400> 9165

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tccgacaaga attctttcgc atccaggcgg agtttgcgga aatcatccat caagatgtcc 120  
ttcgtacctc ggggcagttc tacctcagaa atcaaccgtc caacagtgc atcgacacaa 180  
tgctacaaat gcaggatgac aacgcccgtt ctttcattac tcccacgata gacggcggct 240  
tcatccacgc tccggtcctt tgagtcgagt tgtctagttc tgaaacatca attggctcat 300  
gttgtaatta aactttaatg aactttagt atgtctcttt ggttttgaga gtcgttcaac 360  
ttagatgtaa tcgatgctat taatgtcttg cttttct 397

<210> 9166  
<211> 404  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-G7

<400> 9166

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agtgtggtgt tcgtccgacg aaggtttcag gtgagcgcgc caaggagggtg agatgccagg 180  
atgccgtgtg aggcggcgag cacggcgaga tgccgatggt gctgcgtgag aagcggcaag 240  
acgtatcaga ggctggagcc gtgatggact gcatcaaatt gggtcgggtg aaccggccgg 300  
tcgttctgtt tgttggacta gctgttcatg cgtgagttcg tttagtccta gctgagagta 360  
tcgttgctag tagttgatgc atgcatgtag ttggcctggt caca 404

<210> 9167  
<211> 415  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-060-Q1-E1-G8

<400>       9167

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ctggaggggtc tctgctagga ttggacggct ctatcgggag aggcttatcg gagtccaatt  120
ttcacctttt cggggccatt gtttttgggg atatggaggg ttgagtaaga tggataacaa  180
aagtccctag ttccacagga ggcttctact cagcacactt tgatagatga tcagctatgc  240
tgttttccgc atgggggatg tgctctattt gcaatccatc aaagtgttcc tccaatcttg  300
tcacttcctt gacgtatgcc tccatcaatg ggctttggta atctttgttg acttgtctca  360
ccacgagctg tgaatctcct caaatgatca gcttcttaat tcccaattat gcggc      415
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<210>       9168

<211>       343

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-060-Q1-E1-G9

<400>       9168

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tgcaggggtct ctgctaggat tggacggctc tatcgggaga ggcttatcgg agtccaattt  120
tcaccttttc cggggccagtg tttttgggga tatggagggg tcagtaagat ggatagcatg  180
agtccctagt tccacaggag gcttctagac agcacacttt gataggtgat cagctatgct  240
gtgttccgca tgggggtccgt gctctatttg cactccatca gagtgttcct ccaatcttgt  300
cacttccgtt gacgtatgcc tccatcaata ggctttggtc atc                        343
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<210>       9169

<211>       392

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-060-Q1-E1-H1

<400>       9169

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tggttctgct acaaacaggt gaacacgttg tcccagacaa gcatgaccac gtggtagtct 120  
 tacaataaaa cactaccgag ttctgggttg gaaccatcac cgtggttaac gaagtccttg 180  
 cataagtcac atgattagct cttatgaagg aacttcttct ccttgaacaa atcaatcagt 240  
 ggcttggtgt gctcgggaca catatggaat gaaggttgca agtctccaga ccacagaata 300  
 cttcgcacgt gtgcatgact gatttgggat gattccaagg aaacaaaaca atcttcctcg 360  
 aattcatggc ggcaacttgc atcagatgca ca 392

<210> 9170  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-H10

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 gacgatgccc aagctggagt cttgaagagc cacggggcac tcagcttcct caaggttcac 180  
 aatgctggcc acatggttcc gatggaccaa ccgaaggccg cccttgaaat gctgaggaga 240  
 ttcacccagg ggaaactcaa ggaggcgggt cctgaagaag agtcatctac gaccacgttt 300  
 tacaccgcca tgtgatcgtc aacaccgacc aaaaaggga aagaaactgg ctaggtagcc 360  
 tgcacgcgtc gcccttg 377

<210> 9171  
 <211> 241  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-H12

<400> 9171  
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 gattatgaat tcaaagacag cttgtgttga agttagtac tcccgtagca agcacgtatg 120  
 gttaaagggtg tgtaacacct ttgagacatg aagtgtactt ggcttgtgca tccatattag 180  
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<210> 9172  
 <211> 390  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-060-Q1-E1-H2  
  
 <400> 9172

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ccaccattga tattactgac gaaaggctgc gtgatgatgt ggcaacattg ctgttttaggt  120
cgaagaagct aaggatgctt ggtgtgagag ctaatagagg tggcaataca catggtgtta  180
tacctttcct taatgagctc cgaaaatata acctcgagtc actcatcatt gaaagtgacc  240
tgtgcggtct ggatgaatgg gagccatggc ctgagctccg aagatttgaa ctgacaaaac  300
tcctcccacg gggtccagag agttgggcct cactggacag cctcaccacac ttggattttg  360
caattcgtaa aatccaagca acggatgttc                                     390
  
```

<210> 9173  
 <211> 367  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB104-060-Q1-E1-H5  
  
 <400> 9173

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agataccttt ggtcttcagt ttcaaagaca gtacactttc ctgcgataac tcaggcatca  120
ccatcaggcc ttcttgtctc ttaggtttca ggacctacca ctttgtggat catcactgtg  180
cataagccca tgggctgggg ctgacacgag acattcatcc catggatcaa aacaggctgt  240
gattgtctgt gtgcagaaca cataagtgtg taacgtttat aatctcaaca caacacaata  300
tatcgacat gtgcagtcac gagtttggat gtgtccacgg aatagaaca ttcttcctcg  360
atttcat                                     367
  
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<210> 9174  
 <211> 361  
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<213>       Triticum aestivum

<223>       Clone ID: LIB104-060-Q1-E1-H6

<400>       9174

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caaaggaagg atcaagcaat tgaacgcaca tttaaaggac ttgcaaggca cttccgcgaa  120
atgttctctg aactggtgca aggtggcaac ggagacctgg ttacgacgac gaagtaggat  180
ggtgatgctg gcgatgatga catgaatgag gacgcgcctc gtgaagcata tcctgaaggg  240
aggatagaga gatacactgg tatgaaggtc aaggttacca tcaactggcag aggagatact  300
cagtcgataa atcatttgtc tggacgacag aagacggtgg tggcattaac actgatcctc  360
g                                                                 361
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<210>       9175

<211>       381

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-060-Q1-E1-H8

<400>       9175

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catatcccc ttactggacc aaattcaatt gttggccgtg ctgttgctgt ccacggtgac  120
gctgatgatc ttggcaaggg tggacatgag cttagcaaga gcaactggaaa cgctggtgcg  180
cgtgttgctt gcggaatcat cgggctccag ggctaagatg tcactctccac cggccaacgt  240
cgtacagatc tgggaacctt ttcagaatgc agatttgcaa tctctattct aaataagcac  300
atgatctttg atcacttggt agtgtgcacc attcgtgtga attcctatgt gctactctga  360
actttaccac tgtcatttgg c                                                                 381
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<210>       9176

<211>       359

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-061-Q1-E1-A10

<400>       9176

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cacgccataa ccaacatcag ctccgccttg gtcgcatgg acgctgccga cggcttccta 180  
ggcccgaact tctcgatctc caccgctgtg gccacctcca accactgctt caacagcgcc 240  
gcggaccaga tccgactggg ccgagccgac gtcatgatcg ccggtggcac cgaagctggc 300  
atcatccga tcgccctcgg cgcgttcttc gcgtgcaggg cgctgtcgca gaggaacga 359

<210> 9177  
<211> 420  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-A2

<400> 9177

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agcatgggtg gcgaggactt cgctttctac gcgcagagag cggcgggtgc attcttcttc 180  
atcggcgtag gtaacgagac cgccatggac aggggtgcac ccggtgcactc cccgcatttc 240  
gtcctcgatg aggggtgttct tcctattgga gctgcgtttc acaccgcggg tgccattgag 300  
tacctgaacc gctcctgaaa actacaggag catgagtga ggtccgtctt ggattatgga 360  
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<210> 9178  
<211> 397  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-A3

<400> 9178

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ttagagcacg acagtggctt aattttgtag aaattgctag tctctcatga ttcaactata 180  
ttattttgag agtctcttag aacaacatgg tatttgcttt gggtataaaa ttgggtcctag 240

aatggtaggt atccaagttg ggtataataa aaactatcat aggaagtgaa ttggatgcta 300  
 tgatcaattt gatacttgat aattgttttg agatatggat gtagtgatat taaagtcatg 360  
 ctagttgggt gattatgaat ttaaagaatg cttgtgt 397

<210> 9179  
 <211> 376  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-061-Q1-E1-A4  
 <400> 9179

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 catttttggc aaaatgcttc aacaaccgtt ggaattggct acaaacggca tcaaatacag 120  
 ctgcaacagg agtcatgttt tgcaacaatg caaaaacggg gtcgagtttt tgttacaact 180  
 ggcgtcgcat tttgctacaa atgttatcat ttttgctac ataagtccac cgttgagttg 240  
 tgagttgcc a tgatggctat aagcagtggc gacgccgaac tgtggtcgtc cggcggcgac 300  
 aatgatagct ccttgaagc tccgcctccc agctgggact ggaaatccaa tggcgccgtc 360  
 acaccgtca aatccc 376

<210> 9180  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-061-Q1-E1-A6  
 <400> 9180

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 caaaataaat aattgcacca gtcattctaa ggaaaggctt tccaagaata ataggacatg 180  
 aaggattgca atctatgtca ggaacactaa ggtctacggg cacataattc ctattttcag 240  
 caataagatt atcattaatt cttcccatag atttcttaat agtggaatcc gcaagggtgca 300  
 agtttagaga gcaatcatca aaatcacgga aacctatcaa atcacataaa gtccttgga 360  
 ttgtggaaac actagcacc atttcacaca aa 392

<210> 9181  
 <211> 207  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-061-Q1-E1-A9  
  
 <400> 9181  
  
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 ctgaatatgt gcctgcggct gctggtgtat gtactagcca cacatgataa ttatatggga 120  
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 aaaatcacao taatactgca acaaaaaa 207

<210> 9182  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-061-Q1-E1-B1  
  
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 tgatatttgt attagcatgt ttgagttttg catgtagtct agtctagtgt ggtgttcgtc 120  
 cgacgaaggc tttagggtgag cgcgccaaag aggtgagatg ccaggatgcc gtgtgaggcg 180  
 gcgagcacgg cgagatgccg atgggtgctgc gtgagaagcg gcaagacgta tcagaggctg 240  
 gagccgtgat ggactgcac aaattgggtc gggngaaccg gccggtcggt ctgtttgttg 300  
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<210> 9183  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-061-Q1-E1-B2  
  
 <400> 9183

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 gatccatcct ccgtgtggcg tctgtctgcg tctcatcgaa cgccaggacc cgctgggagc 180  
 gatgcttgac ctcgtaaggg agaaccgctt ctgctccata gatgaggaag aacggcgttt 240  
 ctctgtttgg cttgggtcgcg gcggtgcgga tggaccacag cacggactgc agctcgtcga 300  
 gccagccctt gctgtagggc tcgagcttct tcttgaaggt tcgggtcttg aggccctta 360  
 ngactttcgc attggccctc tcagcctgcc cattac 396

<210> 9184  
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 <223> Clone ID: LIB104-061-Q1-E1-B3  
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 atcgcatctc caaaggacaa ggtctgttgt aacgatcttc tctgatttta cttagcactc 180  
 tccatcgcggt ttcttttgac aagtttagtt gcacgtcacc ggctctacc aaccacatat 240  
 agttcttttc cctcagtcac tggagccaac acaagacatg gaagcacaag aggacttaag 300  
 gtcaggtcgg ctccggtata tgggagcggc gtcaactgtg cgttggcagc ttgttctcgc 360  
 aacggcaatg gt 372

<210> 9185  
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 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-061-Q1-E1-B5  
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 tatgagattt cctgttgagt tttgtgttgt gaagttttca agttttgggt aaagatttga 180

tgggtctatgg aataaggagt ggcaagatcc taaacttggg gatgcccattg gcaccccagg 240  
 atattcaaga atagccaaaa gcctaacatt ggggatgccc cggaaggcat cccctctttc 300  
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 ttttaacctg gaacgtcctg tacgatatca gtc 393

<210> 9186  
 <211> 370  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-061-Q1-E1-B7  
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 gtcgccaagg tcttctgaat cagttcattt cacctcacc gtccgatcca ggagccgatc 180  
 catcgacgta tggcttcgta tatcaatttc atgcaactac ctactctggt cccgatccag 240  
 cctcagcttc acctgaggcc ggcctaatt ttgtttgatc actttttgtg ctaccagtag 300  
 taactagtga tgatcactgt tccatcattt atttatttta catcatcaca agtatcgttt 360  
 ctttctcaaa 370

<210> 9187  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-061-Q1-E1-B8  
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 cgtctcaagc ttcttcgtca aggttctcca gctgccatgg cgctggggga tgaagtactt 120  
 ctgggacacc ttgctggacg ccgaccttga gagcgacgcg ttgggctggc agtacatctc 180  
 cgggtctctg cctgatggcc gtgagctcga ccgcattgac aaccgcagt ttgaaggcta 240  
 caagttcgac ccatacgggg agtacgtccg gcgatggctg ccggagctgg cgaggctacc 300  
 aacggaatgg atacaccacc cctgggatgc acccgagtct gtgctgcagg ctgcaggaat 360



tgagctaggt tccaattacc ctctcccat tggtgag

397

<210> 9188

<211> 316

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-B9

<400> 9188

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cttccagttc cgccggcacg gcataaaatt caggacaagg agttgccgcg tcataattcc 120  
aagggaaaaa acagcacaat agctgtcagt gactagcttg cacatgacat cggagcacia 180  
agattgaagg aaaaataatg tagtaaagat agatcattca ccaggatggg gaagcatttg 240  
ttgctcgggc gaacacaatt ggtcagcgcg aaatggctga gatgaggtag atgagtagct 300  
ccaacttgaa aacatc 316

<210> 9189

<211> 403

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-C1

<400> 9189

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aaagtaaaag tgaacatgag aaggacgaac accattggag tgggggatat cctgaacttg 120  
ttcatgccca tgggaacttt gtgaatcttg aattacagaa actttttaac aaaataatta 180  
tacccttgta caaattcatt ttattataag tttatgtgcc aaggtttgac tttaggatga 240  
ttagattgct tgttggtatg tgcggtgcaa aaacagaaac tttggctgta gtgcgtgatt 300  
ttacattttt tactggaatg tcaaaagttt ctgaactttt tacacaatac tgctatgcaa 360  
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<210> 9190

<211> 163

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-C10

<400> 9190

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catggcgatg ctgaacaaga acacgggctc cctcagcttc ttcgtggccg ccctcatggg 120  
ggtcatgggt gccatccttc tctctttctc gttcgacgcc ctc 163

<210> 9191

<211> 319

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-C12

<400> 9191

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ggagtccac actgcgagag catcagatcc agcgaatcac acatgtcacg tacgatgcag 120  
cgctcataat gatgtgagtc attggcgaca cgacgtgac atcacgagtt cactactc 180  
gtgatacgac ctccaaaggc atcatccagg gtggcgctact tggcatgac agcattagac 240  
actcgcgact tcagattagg gcgtgagcct atgcagataa catccattgc agcgatatgt 300  
ccggtggcgt gagactgtg 319

<210> 9192

<211> 425

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-C4

<400> 9192

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aataatattc atgatgtata aaaaaatgta caatgtgtat gcaagaaata gacttaaaaa 120  
tatgtattaa aaatgttaat attgtaatac aaaattttta aatgtatgta ttagaaatat 180  
tcctgatata tacaaaaatg taaaatgtgt atgaaaaaaaa gtacacataa caaatatttc 240  
tttgaaaaaa atgttagtca tgtgttttaa aaatgttcaa cgtgtataaa aaatgtttct 300  
tatttaggga aaattttaag tgggtataat aatgttccta ttctatacga aaaggacag 360

gatcaaccga tggaaaccaa taagagaaag aaataaaaat taaggaaacc taaaaaaaaa 420  
caagg 425

<210> 9193  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-061-Q1-E1-C5  
  
<400> 9193

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tgcggggccgc gctggacgcg ctcttcggct gcttctctc ctgctccggc ccctcgccgg 120  
acaacggcca gttcgccatg gcgtacgagg acaaggacgg cgacctcatg ctcgccggcg 180  
acgtcccgtg ggacatgttc atctcctcct gcaagaggct gaggataatg agaagctccg 240  
aagcacgatg atgacgatga tgaaaaggac ccgatcaagc acacatacat acatgaagca 300  
atctggagat gatggaaacc ggccgtggca catgatcagg agaaggacgc acgcatgggc 360  
cagatgcatg atcaggccat ggggtgaacgg cgaacggagg ccgggttacc cgggcacgcg 420  
cct 423

<210> 9194  
<211> 210  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB104-061-Q1-E1-C7  
  
<400> 9194

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ggcaggcaat gagcatatgt gtgtaggctc cagttgagta acctttacac accttcccct 120  
atatgagcac atcaaagata atcatataca gactcgaaag tctagtagcc gaccacgtaa 180  
aattattctg taacagatct gcgtactgcg 210

<210> 9195  
<211> 387  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-C8

<400> 9195

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taaacaatct aggtctcatt ctgcatgatg gaatttctat aaccattgga accctatcta 120  
tccttgacca caattggtgt ccatcaattt cagatccta catcgccacc gtgtcagtag 180  
gagcatgcaa tctcttttct cacgtgacac agggttcagt agccaccgag tggcgaccat 240  
cgatacactt cgagaccata tattttgccg acatcacatg tgtacctttg aggaaaatca 300  
ttttgtgata gtctaatatg agaataaatc cctgggtcat ccaaagacag agaccctttt 360  
gtacagcaac tgtcacgaat tctggcc 387

<210> 9196

<211> 211

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-D10

<400> 9196

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agtggccttg ctgcgacgat cactgagca ttcagcccca gcgtctcaca ggattcagtc 120  
taaggaaacg agaggccgag cattgtacta cactttgtga gccacttctg aaaagtgtac 180  
attgaactgt cagcatgat actgtgggcc t 211

<210> 9197

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-D11

<400> 9197

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aattacaaac ttaaaaatta atctcattag gtgtttttga gagaaatgaa ctgcgtgatg 120  
acaacagcat gcttcgcaat gaaatcctgg agcttcagaa caagcttaga atgcgtctgc 180  
agagcaaccc tatttggagc caggatacta ctacaagatc agccgttgca gtaccttatc 240

ccacaagcgg agtgttccca gtacatcatt cgccacattc accagtcac acctcgacag 300  
 cactttctct gcatcccgta atcactgagc aatgctatgc tgccccacca cgagagctgc 360  
 agctcttccc gggaagcttc atcttcatcc ac 392

<210> 9198  
 <211> 375  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-D12

<400> 9198

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 aacaacgcag caggggtgctc tgctagattt tcagcgccgt ggcggtcga ggacaggcgg 180  
 ttttaagatt tgatttgctg tagtgctagg accatgtgta acaatgtact tatatgcagt 240  
 gcagcctttg ggggctgcgc acagggtgatt tgtatggttg cttacattgt tggatattta 300  
 tttgtgcaca accgaaataa tatgcacca ccgccattgg ttccgcttgg taaatgccag 360  
 ccagaaattt gttcg 375

<210> 9199  
 <211> 329  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-D2

<400> 9199

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 cttcttcgtc gttgctgctg cctcagccgt tatctagttc ttgcttttagc tatgatgtgc 180  
 taggctttgc ttccaactac tgtatgctgt gtctgaagtg ttgtgtgggt gctctgcttt 240  
 tactttcaga tcttgcaaga tccttttgag gtgctgggct ggggttcgtc gtaatccccg 300  
 gtcattgtag atagtatgtc gtgtgcggg 329

<210> 9200

<211> 322  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-061-Q1-E1-D3  
  
 <400> 9200  
  
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 aaggacgacg acggccacgg cagcagcagc agcgacagcg acagcgactg agccagctcc 120  
 ggccgcgtgc agtgcagggg agatgaacgc gtgggttaat ttggagcgtg tggtagcata 180  
 tgtatgtaat gcttgacatg tctcatggat cttgtaatgt aataaccggc tgcactgcat 240  
 ggtgcttgta ataataacgt taaggaatct ccattggtaa ttggtacca tccttttttc 300  
 caagcttttt gtgtatgtat gt 322

<210> 9201  
 <211> 346  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-061-Q1-E1-D4  
  
 <400> 9201  
  
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 aattgaacaa cctaaggcct tcaattgcg cacccttgc cgtaccggt gcagcaagtc 120  
 gagccggccg aatttgtgca acagggcgtg caacacgtgc tgccggcgat gcgactgcgt 180  
 gccgcccggc accgcccggc acgaggacgt ctgcccctgc tacgcccaca tgaccacgca 240  
 cgacggccgc cacaagtgcc catgattcaa ccgccttctc gacggccggt cgaggcta 300  
 gcataactaga tcatggcgtc tcagtaaata tcccatcaag ctagct 346

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 <211> 391  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-061-Q1-E1-D5  
  
 <400> 9202  
  
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tgcaaggcag taaccatttc ttgtcttcat cctcgtattg tatagcatat agagggtacaa 120  
 gggagagaga gagagagaga gagagagagt tacactgtaa caacatacat ttgggaccc 180  
 atctatcagg gcgcgggcac gtagtcatac tgcattggata gggacgtgcg tttagcatcc 240  
 aggagaagtt gttttcagca taaaaatatt cagtctaaca ccgatgacca cgacaacaat 300  
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 tgagtgatat atggtcacgg gctcacggcc t 391

<210> 9203  
 <211> 394  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-061-Q1-E1-D7  
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 tcttgagccc tggcagttgg acggtgagcc ggtatccgac gcggaaacca ccaatgagga 180  
 gtaatgcagc aacttggccc tatgctgccg tgtgccatgt ttgcttgccc cagaatgatc 240  
 gaaacagctc tcatcagtcg tgtgttggtc tcttggtgta ttaccggata agctatattt 300  
 tcttgccgtt atctttcttc atgtgcccgt tccgtgtgca tatggcatcc tgtttgttgt 360  
 tacattgtgc tatatatgct gtagtattca gatt 394

<210> 9204  
 <211> 352  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-061-Q1-E1-D8  
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 tcaaggacgg caccgtcgtg tatagcaccg ccgggtcggc gtgacgggtt ctgcgacaac 120  
 ctctgcgtg cgttgatcgt cgtcgtcgtc tcgaggcccg ggagggactg aagaagtgac 180  
 ccggggacgg gaggcgtttg aagcttgaat gactgagaag gcgcgcgcgg gcagcattag 240

tagtaagtag tagtaaggag cagtggaaca aagtaatagt cgttcgtttt tcccctgtaa 300  
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<210> 9205  
 <211> 328  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-D9

<400> 9205

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 gttctgttca ccaattttta gacacagaacg tcataatgat actctcatac tgttgctttg 240  
 ggacaagtat aacatcttct gaaatgtcaa tcttggtcga ttcacagcca ttatatgatg 300  
 aatataattt cagatatcac catggcat 328

<210> 9206  
 <211> 368  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-E1

<400> 9206

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 gtcaataatg gccgtcctcc tgggtgctcg aatgtcccc gtgaccttca ccaaggctca 180  
 atggtcgccg atgctatcag tgtcatctca tgctggatatg aagacaacac agagtggggg 240  
 cagcgtatcc gatggattta tggctcagtc acagacgatg ttgtcacacg gtaccggatg 300  
 cagaaccgtg ggtggaagtc agtctactgt gtcaccaatc gtgacacctt cactgtact 360  
 gcaacct 368

<210> 9207  
 <211> 274  
 <212> DNA



<213>       Triticum aestivum

<223>       Clone ID: LIB104-061-Q1-E1-E10

<400>       9207

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tttgagagtc ttttattaca tcatgggtatt tgctatgggt acaaaattgg tcctacaatg  180
atgagcatcc atgttgggta ttgtaaaaac taccacagga tgtgaattgg atcccacgat  240
cgatttgatg cttgacgatt gttttgaggt atgg                                274
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<210>       9208

<211>       391

<212>       DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB104-061-Q1-E1-E11

<400>       9208

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ttcgccaggt ttgtcagcaa caccgactac acgttctcta cgggtgaaac ctgcaacgat  180
gtaaaggcgc tcaaggttac aggcttggcc tgcaaaaacc ttgtcgaaat ccgtgagcac  240
tatagggctc ggggcagctt gaagaaggac tactgggttg aactcgctc ggccatcatc  300
gacncctact atgacaagat gaagcaggat gccaaagaaa caaatcctgt atcctggcac  360
ggggcctaaa cgcggaact agatgaaact c                                391
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<210>       9209

<211>       220

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-061-Q1-E1-E12

<400>       9209

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cgtcgatagc ttgttatttt tttattctat atttgtgtta cctgatgcca actatttctg  120
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attgtaaacc tgatgtgaac catgtttgat cgcaatgtgc caggtttggc tcttttaaaa 180  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaca aaaagatcaa 220

<210> 9210  
 <211> 385  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-E3

<400> 9210

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 ctcgatcatgt ccgtgatcac atccgggact ccgagcaaac ttcggtacat cacaatgcat 180  
 agactcacia tataactgtc atcgtaacct taagcgtgcg gaccctacgg gttcgagaac 240  
 aatgtacaca tgaccgagac acgtctccgg tcaataacca ttagcgtgac ctgaatgccc 300  
 atattgtctc ctacatattc tacgaagatc tttatcggtc agaccgcata acaacatacg 360  
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<210> 9211  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-E4

<400> 9211

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 cttgatgaca ttcgggacca gcatggttgc ttttcttctg ttcaagctca gagaaactct 180  
 actccatgcc tttttgcaga tggaacaat ttccaacaag cagaaagtgt caacagcaat 240  
 atcaagcaca tgtgcagtat aagtcctcgt tagaatgtca ttctattctg ttgggtggcgt 300  
 gttggatcga ccataagtag caaggacatg cgcttcttac cacactttaa tatcctgcc 360  
 gtaactgtga taatgtctta cgctggcacc aagtacccaa ctgaaaatac ctggccattg 420  
 tgc 423

<210> 9212  
 <211> 379  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-E7

<400> 9212

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 aagactaat ctaaccaact ccagcctctc ttctctgcc atgtttacca tgggcctgtt 180  
 cttgctggcg gacgggggtac actctaagtt tgacacacca tgggtcccggt tcttttggga 240  
 aggagcggga ccaaaacgga aataccatat ggttaaattg caggccgtgt gtcttcctaa 300  
 agcccggggg gtcttgggat catcaactcc aagttgatga acatcgact aatgtgcaag 360  
 tggatctgga aaatgactc 379

<210> 9213  
 <211> 224  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-E8

<400> 9213

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 tcatctgcga gtcccacgtc tccgccttgc tctgcacgt catcgctcg cgctggcccaa 120  
 tccagttcgg cttcacgggc ggcttctcct ccccgacgca ggacgccatc acccgcgacc 180  
 tcggcctctc catctccgag ttctccgtgt tcggctcgct ctcc 224

<210> 9214  
 <211> 362  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-E9

<400> 9214

tgatgagatc gaaagtatgt taggaaggag agaaaatcct ggggagcatg aagccatgcg 60

caagatgaaa aatgaattta tggtaaattg ggacgggttg cgaacgaaag ataaagaacg 120  
 tgtactgggt cttggtgccca caaatagacc ttttgacctg gacgaggctg tgattaggag 180  
 gttccccgcg aggctaattg taaatttacc tgacgcatca aatatagaga aaattttgaa 240  
 agtaatttta gcacaagaag agttgggaca agatactgat ctggagtcac ttgctaatat 300  
 gactgatgga tattcaggaa atgacctgaa gaatctatgt gtaactgcag ccactaccc 360  
 ca 362

<210> 9215  
 <211> 218  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-F11

<400> 9215

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 acatgccac aaccttaaaa accccaaaag aaggaagggt tccagcaca acaaccactg 120  
 aaccgcgca ttgcacaca agcccttgca cagacacacc attgtcttgg tcaccatgtc 180  
 caatggcatg tattggtgga cattggttgt aaattgtt 218

<210> 9216  
 <211> 379  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-F12

<400> 9216

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 aaatttgaa ttgcttcagc gaaaaactgg cgacaaaagt gtcattcagac acgggtccctt 180  
 atttagaact gtgtatgata tgtgaacatc acaaacgatt cagatagctt aaccgtgtg 240  
 cgatgagttt gaacgtcaaa aattttgttc caatttcctt gggtacagtg ctcatccaca 300  
 tcattgcata atttgggtac acaaaggaga ctacagcaca cccgcacttc ttaatcgagc 360  
 aagttcagca attaaacag 379

<210> 9217  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-F4

<400> 9217

gggatacaat gaaatgcgac gcaagctaca caaaaatgac aaataccgat tttgaaacat 60  
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 tgcattgtcaa tgtattttct catgaaattt tgcacacatg tagtatacat ctatcgtttag 180  
 tgggtaattt tttccagaat ttttgagat tgtgaaatgc gaagtttcaa tttttcaaaa 240  
 caaccaagct caagcaccaa acgtgttttc tgaggtagca gtccaaaact agaaattcat 300  
 aaaaaagaga atacaagtgg aatagggcca gttaaaaaac taaaaagttg gacttgtcta 360  
 aaagtacctc tagaaagcct t 381

<210> 9218  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-F6

<400> 9218

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 ttcagcgagt tcatctcctt ctgcaacgcc aaccccgggc tcatgaagga cgtcgccaag 180  
 gtcttctgaa tcagttcatt tcacctcagc cgtccgatcc aggagccgat ccatctacgt 240  
 acggcttcgt aaatcaattt catgcaacta cctactccgg tcccgatcca gcctcagctt 300  
 cacctgaggc cgccctaata tttgtttgat catttttttg ctaccagtac taactagtga 360  
 tgatcactgt tccatcattt agttatttt 389

<210> 9219  
 <211> 380  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-F7

<400> 9219

tcgacgggct tcattgagca atttgacaca aagaaaaaaa tgtcacggag attgttgctc 60  
ggacaacttc tcgggcgagg aatgcaacac aaagagccaa atcgggtgggg tgtttggcgc 120  
tcttcgtgctc actgatgacc tgttgggtgag gggggcgat tttaggaagc agcagcttga 180  
caacaaaaca acatcaccta actctaactg aagaggacag ccggtgtgat ttgctcttac 240  
attgatatcg catgcgtatg aataatggc caatggaatt gggagcggag taagaagctc 300  
atgttgccct tatgcatgta acaatcatgc ctgcctgcac ggcccgtac ctgttggtcc 360  
aatgcctggc tgctgcctg 380

<210> 9220

<211> 388

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-F8

<400> 9220

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agatgccctc tgattttgag aatagtgtga aagaatttat gattttctcaa acgaatttta 120  
atgctttgct tgaagaaaaa ttgctcaaag ttgatgattt ggctaggaac gttgatagac 180  
tttcgcttga tgttgattct cttaaactta gatcttctcc tcctaagcat gcaatgagtc 240  
tctcaaagta atgagaattt cctttgacga gtgcaaggaa agaaccgcta gattgcgtgc 300  
taaaaaagat agctttataa aagcgtgttc tagtttccac gaaaataatg atgaagatct 360  
taaagttatt gatgcgtctc ctattaga 388

<210> 9221

<211> 187

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-F9

<400> 9221

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ttttgataaa ttctaaattt ttgcacgagg tgcattgagtt tttgactaat gttgactcca 120  
 tggataagac gcactctcac ctttcgacca ttgctagcct ctctaagacc gtgcacttta 180  
 tgccggt 187

<210> 9222  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-061-Q1-E1-G1  
 <400> 9222

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 gggccaggat ggcaatgagg tggtctttcg catcaagaga tctaccagc tgaagaagct 120  
 gatgaatgcc tactgcgacc gccagtctgt ggatatgaaa gctattgcat tcctgtttga 180  
 cggtcgcagg ctccgtgccg agcagacccc tgatgagctt gagatggaag atggcgacga 240  
 gatcgatgcc atgctccatc agaccggagg ccgcctccct ccacgcgcct agaagaagcc 300  
 gttgagagtc ctgcttggtt tcgggtctaca agactctgat ccatcattag agagcacatg 360  
 aacgaatgaa agtctaaaaa gaacttgtga ggctctggcc ccatgccata gctgaaggac 420  
 attaggaag gttttg 436

<210> 9223  
 <211> 350  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-061-Q1-E1-G10  
 <400> 9223

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 tatctcttgt tgacaacatc ccccggtttt ctctataacc gaggaggagg ctggcgtctt 120  
 ggcattgtggc cacgctagaa tttttgcgcg tacctggaca ccaggggctt ttttaccag 180  
 ggctctatct cggcccgctc tcatagagac cgaatacctt acggagtgtt cggcgtcgcc 240  
 agtttggtct tatatgcac agctccgaat catgtctttg gtcaaagtgt gggtttgccc 300  
 ggctcctgtg tgttgctgcc ttacattccg tcatatcagc taatgcggca 350

<210> 9224  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-061-Q1-E1-G11

<400> 9224  
  
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 tgaagggaga ggttggcccc caaaccatcc atgtaccatc aggggagaag cttgctgttt 120  
 ttgatgctgc tatgaaatac aagaacgaag ggcacgacac tatcatcctg gctgggtgctg 180  
 agtatggcag tggaagctca agggattggg ctgcgaaggg tccaatgctt caggagtgga 240  
 aggctgtgat agccaagagt tttgagagga ttcaccgtag caatctcgct ggaatgggca 300  
 tcgtcncctc atgcttcaag gctggggagg atgccgacac tcttggctta acaggccatg 360  
 agcgctacac catccagctt ccgactgatg tgaatgaaat c 401

<210> 9225  
 <211> 364  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB104-061-Q1-E1-G2

<400> 9225  
  
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 aaacaaacca aaccttgagg aaaagcttaa ggaaaagggg tgtacaggag agtcaggttt 120  
 cgatcctgtg gaactgtggg ttacgggccc accatgtggg ttaaaagtan gaagggcgga 180  
 gacgtcttgc gtgatcatgc aagcaaggta tgcagagga tagcctatca gttatgtcgg 240  
 caacaacatc agtaccaagg gcgagggatg aagagaacca ttttcctgct cgttgaacga 300  
 ggcggaccag taggcaaagt tctcatccat cgggtggttac cgaaatgtca tcaacaagaa 360  
 taac 364

<210> 9226  
 <211> 379



<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-061-Q1-E1-G3  
  
 <400> 9226  
  
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 gagcgaagac taatgatcaa catttaactt gataatgcat atgtccaggt gaacctcctt 120  
 ggagtccccg tgcaccgcat cggcgggtaa aggatgccat gggttttcca agtccacatt 180  
 ggcgggatag tcccagctcc ccggagtcca agtccgttca atgaggccgg tgcgcgccgc 240  
 cacgcgaccc ggaggggtag taacaccgac cacgcacccg tacataggcc tcgtgtcagt 300  
 gtcagtgtca gtggcgctgc ccctgacgca cattacagag acgggggtggc ggcttgcgcg 360  
 agcctcgccg gtgcccacg 379

<210> 9227  
 <211> 366  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-061-Q1-E1-G6  
  
 <400> 9227  
  
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 attgcatcat atgcgagact ttctaagatc tgactgctgt tgcaccatat gaacatgacc 120  
 aactagaaaag aggagggttag gaatgacctt ataagtgggg tggtttcgtc ttgcacgtgg 180  
 gataacacaa tgggaccagg gacctagagg aagaccagcc tgccgcatgg cggagagaga 240  
 tctacatcag catcgcgact cgtgatcggg gccctcgggg gaataggatc atcgcgaagc 300  
 agcggactcg cgatgggaag aaggaaaaca gtgatttctc cgtgcgtcta ggtcgatgcc 360  
 tcctta 366

<210> 9228  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-061-Q1-E1-G8  
  
 <400> 9228

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tattgatggc cttccttatg agtggcggtc ggggacgagc gatgggtctt tgctaccatt 120  
ccatccccct aggagcatgc gcgtagtact ttgtttcgat aactaataaa tttttgcaat 180  
aagtatgtga gttcttttatg aataatgctg agcccatgga ttatacgcac cctcaccctt 240  
ccacattttc tagcctctct agtaccacgc aactttcgcc ggtaccataa acccaccata 300  
taccctcctc aaaacagcca ccatacctac ctattatggc atttccatag ccattccaag 360  
atatatttcc atgcaacttt ccaccgttcc gttgttaata acacacttca ccattgtcat 420  
atttccatgc atg 433

<210> 9229  
<211> 387  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-061-Q1-E1-H10  
<400> 9229

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gagggggcggg aagattggag cttgaaatta ttggaaggag atacactgat atggcttcaa 120  
tattgcgtgc attgggcatt cctgttgaag ggggcgaggt taaagctgct tataagcaag 180  
ccctcctgaa gttccatccg gacagagtat cgagaaacga tatttatgag caggtcaaag 240  
caggggagac gttcaagttc atctcgcgct ttaaggagaa gctcaagata tagcttcnct 300  
gctaccagtt atataggaag gtttaacttt ttgataggct gaaatcttgt cagcaggtca 360  
agctgtgaaa ttgattgacg ctgaacg 387

<210> 9230  
<211> 399  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-061-Q1-E1-H11  
<400> 9230

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tctctcaata gcataagtat tctacggtgg gtgaacaaat tactgttgag caattgatat 120  
aattgatcat atttatgaga atatctaggc atgatcatgt atatatgcat cacgtccgtg 180  
acaagtagac tgaaacgatt ctgcatctac tactattact ccactcatcg accgctatcc 240  
agcatacatc tacagtatca acttacacac agagtaacgc ctttaagcaag atcacatgat 300  
ctacaaatga taattcatgc aatatgaaat aagacccatc ttgtttatcct cgatggcaac 360  
gatacgatac gtgccttgct gcaccttctg tcactgggt 399

<210> 9231  
<211> 338  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-H12

<400> 9231

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ctccagcaaa tccgggacag cttaccattt tttatggtgg gtcagtatgt gtgtatgact 180  
cagtgccacc agagaaggct caagcaatca tgctcattgc agcagcagct gctgcggcct 240  
caaaaagcaa tggcaccgct gctgttaagc ctccagcgat gtctgcgaac aatgcgatcc 300  
aagccatgct tacgcggtcg ctctcactcc agaacact 338

<210> 9232  
<211> 389  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-H3

<400> 9232

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cgtcataacc cggtcgatc ttggtgagct tggctctctc ggcaatgatt gtagcatgag 120  
ggcgaatctc cttgacacaa gcagcaaagt cttgttgatc aaaaagagtt ccatcttcct 180  
tgagactggg ataccactg gctatgtccg ccggatctaa ctctggtacc taggctttgg 240  
cacggctcaa agctgtcaca gttccggctc tagcacagga tcgcttgatt tcttgggaacc 300

tagtgggcaa gatggacaac ttcttcaaga catcacttaa taagtttggt tcttgatttg 360  
 cgggggagat agtggcaaga gtccgctga 389

<210> 9233  
 <211> 373  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-H4

<400> 9233

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 tgcttttctg ttgattattt tttaggctga tcaatacaca aattgtccag gacttcctaa 180  
 tttggttaga ttttttagtgt tccagaagtt tgcgttagtt acagattgct acagactggt 240  
 ctgtttttga cagattccgt ttttcgtgtg ttgtttgctt attttaatgc atctatggct 300  
 agtattaagt ggtatgaacc atagagaact tgaatacag taggtttaac accaaaataa 360  
 ataaatagtg agt 373

<210> 9234  
 <211> 360  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-H6

<400> 9234

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 tcacgataac tgcagccatt tttatttcga aagtataca tagttaatta ttcttgcata 180  
 taattagtaa atacattcct cacatccagc aatttatattt agaattgttg gggttccata 240  
 tcttgcgcta gcaacagatt actacaaact gttctatttt tgacagattc ggtatttcgt 300  
 gtgttgtctg cctaatttga tgaatctatg tctagtacaa tacttttagaa accatacata 360

<210> 9235  
 <211> 367  
 <212> DNA



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cggcctccca gagaagccta tcgaggctcc tccctttgct ctggttgcca agaacaagac 240  
cctggccggg agcttcatca gccgcatgag ggacacccag gagatgctgg acctcgcggc 300  
gatacatggt gtgacggcag acatcgaggt gatcggcgcc gagtacgtga acacggcca 359

<210> 9238  
<211> 272  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-A2

<400> 9238

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tcctgaaaat tgtaataaca agtttgaatt ttgcatgtaa tccaatccaa tgtggtgttc 120  
ctccgaagaa agctttaagt taacccccca aaaaagttag aatccaagaa tgcgttttaa 180  
gccgccagca cggcgagatt gccatggtgc tgcgtgaaaa gccgcaagac gtatcaaaag 240  
ctggaaccct gatggactgc atcaaattgg gt 272

<210> 9239  
<211> 397  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB104-062-Q1-E1-A3

<400> 9239

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atcttgctag ctagtgggtg tgtgctcggg gcaaatcaac ccagctgctc atgtgtacat 120  
aaagggcaaa ccagtagaa gaagagccgg tgagggcggg ttgagctgag aacggagggg 180  
gcttaaaggg taaactcatc aataaaatta aaatcaaggg taaactaant cgccccgcc 240  
cgtttgaact aatgcaatcc ccggttgccc tctggctccc ttgctcaatg ccgtgtactg 300  
caatccctgt taatttcac tttgtttatc ctgtttgtta tccgaatcaa ctgataccgt 360  
gcatgaattg aaacaataat atatactcca ttagacc 397

<210> 9240  
<211> 300  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-A4

<400> 9240

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aggcttg gcc acacctgtgc aacgtatcca tatgtattgt gatgatacta cttaattatc 180  
tcagtgcac tcaggtactt cgcataataa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
aacaaaaaaaa aaaaaaaaaa caaaccaaaa aaatcaaaaa aaaaccaaac aatacaaaaa 300

<210> 9241  
<211> 414  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-A9

<400> 9241

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caaaatgtag tggcaccaaaa gctttgtgtga actgattaat tgaattgtat ggctgtagtg 120  
aattaaacgt atgagttagt acataataat gtttgtgtga aatggagggg atgctgttgg 180  
tcgaggtgat ctaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaattaaaaa 300  
aaaaaaaaaa aaaaaaaaaa aaaaggggcc ccccaaagg ttccaacttt aatttcccct 360  
taaagcaaat ttaaaccccc tcaaagggc ccccaaatt caattccagg gcc 414

<210> 9242  
<211> 278  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-B12

<400> 9242

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ctcctcttgg ttaactgcgc tatcaaccat gtctgtataa tgtactgtgt tgctgacggt 120  
ggaagttgat tcacaacact gtgaccagta ggcagggctg cccacctccc ccatcgtgtc 180  
tcgacctctt gtgtgcgtct gaccacatca gtacatcgcc tccgctcatc cctcgacgtc 240  
ccaccctact ccctctctct ccagtccttt gtctgctg 278

<210> 9243  
<211> 367  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-B5

<400> 9243

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cagttcgcta accggaatcg ggacttgctg tccctgcaag tcaactacga gaagcacaag 120  
tccatgtgct acagcctcca tgtccatgtc ctccctttct tcaggttcta caggggagct 180  
cagggcaggg tcagcagctt cagctgcacc aatgcaacca tcaagaagtt caaggacgcc 240  
ctcgcaaagc actcgccgga aaggtgcagc ctcgggcccg cacgggggct cgaggaggcg 300  
gagctcttgg ctctggctgc aaacagggac ctggaattca cctacaacga gaagccgacg 360  
ctgggtgc 367

<210> 9244  
<211> 321  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-C1

<400> 9244

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tactatTTTT ttatgttcgt ctcatcttgt ttaccggtga gatgtgtaca ttaccgggtc 120  
ttgggaaggg gaggtgaatt gaaatttggt tcttaaaatg tatgtcttca aaatattcct 180  
gatatatata aaaatgtaca catgtgtctg aaaaaaagtt cacatgtcaa atatttcttt 240  
gatgaaaatg ttagtcatgt gtttaagcca tgttcaacgt gtttaacca tgtttcctac 300



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321

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<211> 443  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-C11

<400> 9245

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ataaatatat gcagtgaat attcttcagc ggtagatagg gtccctgctg tcatgtgcat 120  
tctacttgac actgggtttt tttcatttct gcacgggcag acctaaccct gtttactga 180  
atgttgcaag taatacagac caaagtttac aaccaatggc agaagaatgc gttttgacac 240  
ttgagaaggc acataaatct taaacacaaa tacatctcct ggaggcatat gtggcttgct 300  
tcggaacaaa caatgtaggt gtttcacagg gttgggtcgc tgcaaaaatt acttaggtgt 360  
gcatgacaga cttaatatat atcttaaacc aaaaaagggt aaaactgttc caaagctaaa 420  
tggcggtggt gttcacaaaa tga 443

<210> 9246  
<211> 364  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-C3

<400> 9246

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acctggagaa gctgctggac ctggtggaga agagctgcca ccaaatacac aaggagacga 120  
tgatccacaa ggcggtgctg aaagcctgaa gtgaaccatt ttgaattgaa tgtggccttg 180  
tttaggttgt gtgcgtagta gactttctct atggatctga attcactttc actgtatggg 240  
taaaactatt ctctctgctc aggtgggcat cgctgtttg ctttgggaac tcgtgtgcga 300  
accggtcccg aaatactgta accacaggga atgaccaatg ctatttgccg tagttttcca 360  
aaaa 364

<210> 9247  
 <211> 226  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-062-Q1-E1-C5  
  
 <400> 9247  
  
 cggggagact aggcattgtca aatccccgac gtgtcatgag tataactgg ccttcgtatg 60  
 atattgaata cttttttacaa ggggtgcccc ccatatgtcg aagcctaatt aatcctggat 120  
 acgaaatcat agctcttccc caatatgatc taaacttacg taaccgtcca ttctatgtca 180  
 tagtccttcc agggaatacc ctaactcatt caccgaccgt cctttt 226

<210> 9248  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-062-Q1-E1-C7  
  
 <400> 9248  
  
 gacgggacag ccaaactggg acgtcatcta cagtgtactg gtcccccttg cactatttta 60  
 taaagtggcc aggggacagc ctgacatgca ccacacctct tatgggcatg gtgccccatg 120  
 ctcaattgcc cccacgcca ctcacctagc ttaggaaatt agctaaccat tgcatataag 180  
 ggcacacatc catccatcca gggaatggat ccccatggac tctcacgcac acaccctatc 240  
 atgcgagctc tcaagagagc tatctaccca tccatccatt cacacacaac acacacgcgc 300  
 atgagcactc acatgctcac ggccatgagc atggccggcc actagcatgc cacatacgag 360  
 gccaggtgcc agatgcctac ggcatttgac tcagatacag ctcgaggagc a 411

<210> 9249  
 <211> 313  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-062-Q1-E1-C8  
  
 <400> 9249  
  
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 cacgtaaaca gttacaagaa cctacatata tggttcgttcc ccacgctgat gttgctcttg 120

tgtattgctg ctgctgccc tctttattct catctcacag aggcacgcag tggctgttat 180  
gcatcttata gtcttggcta tcgcaatccc gaattctgta tatcattgcc cgtgccatcg 240  
tctcgtgaat ggtagcagaa ttgcacaaa aaaaaacaac aaaaaacacc aacgaacaca 300  
cgaccaacca cac 313

<210> 9250  
<211> 139  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-D1

<400> 9250

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taaatagggc tactaacatc tctgctctag tgcttatcaa actgatgtac aaagatgttc 120  
ctatacgttg tggagttga 139

<210> 9251  
<211> 441  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-D11

<400> 9251

cccgggccga cgggtcatct tatcttgata cattactctg tttatcatga gcttaataact 60  
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cgaagtattc aataaacata tagaagtttt ttttcctaa caatgaccat tctatgagga 180  
atacaagata atatggattt tgctattaga aaatggtaga ttttcattag tttgaatgtg 240  
gttcttatgc ctaaaaactca caggacaaaa tgtataatct tatatggaat tctaacaata 300  
acaatctctc agtttgtgaa attctaacaa taataataac ttgcgatgat gtagacatga 360  
gccgatgata taccttagat ctgaagttag tcctgttgag tagtgctaag ggcaaattct 420  
gaaactaaga tgatagaatc a 441

<210> 9252  
<211> 358

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB104-062-Q1-E1-D3  
  
 <400> 9252  
  
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 cggttcctga ggacagctac aatgagacaa cccaccatgt actcctacat ggcctctcat 120  
 cgctaccttt accaaatcgt gttcacacac ttagctcaca catagtagga catgtttaca 180  
 cacctctgat tcctcctcga tgaatcagac ctgactcaac tcgaagcagt agcaggcatg 240  
 acaaacaagc atgaatgagt aggcacatca tggctcaa atactcctact catgctagt 300  
 agtttcatct atttactgtg acaatgacag gtcatgcaaa ggataaaggg gttcagct 358

<210> 9253  
 <211> 312  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-062-Q1-E1-D4

<400> 9253  
  
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 acaatgggac agcagacggt cactgagaag aagttcggag gaattgcacc aaagaagcct 120  
 ctgatttcaa aggaccatga gcgcgcctac ttcgactccg cggactgggt cctcggcaag 180  
 caagctgcaa gcaacaacgc acaggcggcc gcaatcgagt ccttgaagcc aaagctaaag 240  
 aggacgcccc atcaccagct cccacctcgc aagccggcct gcgcgtcggg ctgacgcacc 300  
 gcgacgcgac aa 312

<210> 9254  
 <211> 251  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-D5

<400> 9254  
  
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gcatttgacg tgcagtacat catcgacgag tgatgtcacc gttgatctgt acgaataatt 120  
 tgtgtcaaat aaacgggggg aagtgactag tgaagtcaaa cgacctgtaa cttgttacct 180  
 tattcttttg caaatgttca tgctaatacat gccataaaca cgaactgttc gcttcaacaa 240  
 atatgacaaa a 251

<210> 9255  
 <211> 270  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-062-Q1-E1-E1  
 <400> 9255

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 atcgatccaa acgcacaaat gttgcggatg acgttttttaa gcaagctaag aggaaggag 120  
 ctaagcaagg ccagctcgc cggcaatctt ctagttcaag gagccttcct gggactagca 180  
 gacttctaac aggtgaaact gtacagcctg acacaccaca gccaccagag gaaattgttc 240  
 acaacatcca cttccggagt gatgggttca 270

<210> 9256  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-062-Q1-E1-E10  
 <400> 9256

aattcccggg ccgacgggac gctcaagaac gtgaccccg cgctgcaccc ggagatgatc 60  
 ctggcggcga ccaacaacgg cgacatcgtg gacgcctaaa gcaaagcaat gaaccacgga 120  
 caccaagagg cgtacgtacg ctggtgtttg ggggcgcaaa atcaataaga tggttcgggtg 180  
 aaacggagga tgcttaggga cgagggcttg tctttgtgat ttgtcagact cgtgtttaat 240  
 tccgatgttt atcttttagtt ttcttgtgtt agcgtatttt gttcatgcca cctgcccgcc 300  
 atgtgctctg ctctgctctg cctcacggca gtcctatgga tgatgaatcc ttctggaaca 360  
 agaggaggga ataaaaaggt tgagtttt 388

<210> 9257

<211> 369  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-E3

<400> 9257

cggctacctc atgaacactg cgttggattt gcccgaacag gagaggatga tgcagtaaag 60  
 tagcgttaagt attttcctta gtttttgaga accaaggtat caatccagta ggagaccacg 120  
 cacaagtccc tcgtaccac acaaaacgat agtaactcgc aaccaacgct taggggttgt 180  
 caatcccttc acggtcactc acgagagtga gatctataga gataatattt ttggtatttt 240  
 tgatagatag atgcaaagta aaaataaagg taaagtaaaa acaaagcaag taaataaagt 300  
 gatatagatt gatatgatga gaatagaccc gggggccata ggtttcacta gtggcttctc 360  
 tcgagagca 369

<210> 9258  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-E4

<400> 9258

cgggtcgacc gggatcagaa ggatatggac aacgcagatg cagctggaga acttgtaggt 60  
 ccgattcctc ctctgccgga tgctcaagtg gataatgatg gagcttcagt tgaacagagt 120  
 acttctaacg ctaagagtgg tgagaacgtt gccatgaatg agggagctgt tgacaagggt 180  
 gattcgtcca aattagatgg tcaagacaat accaatggta gcatggatgt tgatgctggt 240  
 agccaggaag agggaaacaa tgttcctgcc gctcctgatg ctacaattgt agatgtaggg 300  
 aacacacctg tatcttcaga ttaagctgtc tcgaatgaag agagtgcgt ggtccctgaa 360  
 tgaaacatct accacatacc tcattctgcgg cgcatgtcac aagcatgatg aggaaggtaa 420  
 ctagaaacag gatgcagttg caaagtgtga aact 454

<210> 9259  
 <211> 307  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-E5

<400> 9259

acggggtaag ttacgtgatt cataagggag atgtgagagt caagatgatg acaaccccat 60  
gacttcaagc tcaagatgga cttcaaaatt cactactgga tggaggacgg ttgacgggca 120  
ccctacagaa accagcggat ggtcgggatg catggagaag cgccatgaca tcttgcgga 180  
agcttcaccc agccacgatg agatggatgg ataccccatt gaccggaagc ttacatgtgc 240  
agccgcaagc cattatgggc cctgtcttgt tcgaccctaa gcgttacttt ggctggaagg 300  
tgctacc 307

<210> 9260

<211> 413

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-E7

<400> 9260

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ttgaaggagg tgaaacaaaa tcagaaatcc tgcagaatct taccgagttc cagttttctt 120  
gtgttatgta taatgctgtt ctagagaatg cgtgcagtga gcttggtgcc cgtatgtctg 180  
ctatggacag ctccagcaga aatgccggtg aaatgcttga ccgctcttaca ctgacataca 240  
acaggacacg tcaagcatct atcactactg agctcactga gatcatatcg ggtgcctctg 300  
ctcttgaggg atgatgatga aactttacgc tatcatcttt tttatttttc tgttccaatg 360  
aaggccactt ctaatctaaa aacagccttt tgcattctcc tgtgattgga tct 413

<210> 9261

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-E8

<400> 9261

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ctatgaacga ccaaagaaaa gttacaaccg gtgacaaaaa aaaacttcat ctgacgacga 180  
 aaaaagcttc atccgacaat gaaaaaagct tcaactgtga agccgtaagc catggacgac 240  
 aaacgaaaaa gttacaaccg gccgttgcaa aagctacaac cgcattgaaa atgtcacaca 300  
 gtcatagcaa aatgttggtta caattgaagc atttctgtta gcggttgcaa cttttctaata 360  
 ttgcatgggtg tctagttgta gctttctctc tcaatgggtg gagctttttc caactacagt 420  
 tgaagcttt 429

<210> 9262  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-F1

<400> 9262

acggtggata aaggcatccg cgtctcgttg tcaatcaatg atgcatgctg ttttaccgcc 60  
 gcggttgaca cgacagcagc tccttgtgcc gaccctttgc ttgccagtga taactccaac 120  
 tacgttaacc atttggttg aaaaaatttg atttgttttt gacgggtaat ttttgtttcc 180  
 attataggtg gacacatga tatactccct ctgtttttga atataagccc ttttagagat 240  
 ttcacgata cgactacat acggatgagc aagttgggag gctagtgact tatattcagt 300  
 cgggtgatgag atgagatgag tcgactttga cgtggagtat ggaagcaaac tgtggaaagt 360  
 tggaccggca accatggcca aggaagca 388

<210> 9263  
 <211> 350  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-F12

<400> 9263

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 gattgacgac ttgttttctt ctatgtatcg aatatgtgga atattatttg taatatactt 120  
 gaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaacaaaaa 180  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa ggggcccccc 240



aaaggattca aacttaattt acctttaaaag gaaagttaaa acccctcaaa aatggcacca 300  
 aaattcaatt aaagggccct tcttttaaaa ggttctaacc ggaaaaaccc 350

<210> 9264  
 <211> 339  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-062-Q1-E1-F5

<400> 9264

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 gctgaagacg aagagcattc cagtgacttc gagccagaag aaaatgggtga tgggtgctgag 120  
 gacgaggaga ttgaggatga cgatgctgag gatgggtgagg atcctgtcaa ggcgcaatcc 180  
 tcatcaaaga ggaaggggtc tgggtgggaa gatgaagatg atgacgacgg tgatgatgat 240  
 ggtgatgatg atgagaagcc tccatcaaag cgatagtcaa tttgttcgtg ctgatctgtg 300  
 atcttctctg cttggggcaa gaaggaaaat aatcctcat 339

<210> 9265  
 <211> 357  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB104-062-Q1-E1-G10

<400> 9265

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 ctccccgaca aggcgatctg gttggaggat gtcgaggatg cgaagctagt gaggcagttg 120  
 tccgcggagc cgcccggaag gccagcaaat aacaccgagg aacatgaggc gtccccgaat 180  
 tacttgtcgc acgtatggat gtatctagat gtattttagt tttagatata tccatttcaa 240  
 cgacgagtaa tttggaatga agggagtatg agatcaaggt ctcatattata ctacatatct 300  
 gctcaatgct tgcahtagaa agcttttctc attgttgtgt ggcaagagct gatattt 357

<210> 9266  
 <211> 405  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-062-Q1-E1-G12

<400>       9266

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tcttctgagg agtgacaaga agaacatggg tctcctcttg gcagagtttg acaagataaa  120
caaaaagctt ggcattcgga aggaggatct tccaagatt gaggaatc ttgaaatgga  180
acttgccaaa gctgagctga cggaacttaa gaaggaagtt gttgaagcaa tggaggggtca  240
actaaagagg gaggagttaa aagatgaggg gatgcctgac gtcaggaagt tggacattag  300
aaacttcctc taagtccttg attgatgata acccttgggg tgaccgatct gtgatttttc  360
ttttcaagtg acggcaggtg ctgttagcca caccgaatgg atgtt                               405
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<210>       9267

<211>       370

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-062-Q1-E1-G2

<400>       9267

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cttccttgaa ttaaaggacc tgcgttccca aaaccctttc gatctgttgg agtcaggtgc  120
gatgtgcccc cggttggaag gagttagttg caagccagct agatggttgg ccgggtcatg  180
ctagtgcatt catgggctag cccggcggtt catgtgggtca tgcattgata tggatcgtgc  240
atgtagtggg tagcctagtg cgtgagttag ttgccgggtg tgcaggccgt gtggtgtgtg  300
tgcacgggta taaaaacccc tctccatgt actgatccag ttgagccggt gtgtagccat  360
gttaccactg                               370
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<210>       9268

<211>       445

<212>       DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB104-062-Q1-E1-G6

<400>       9268

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aatccactac cgggtgcagct gttcactttc acccagcggc ggcgcgggaa ggcctccgag 120  
ccctttcttct tgcgcgccgt cccgtcgccc accgaaccac gcaccaagaa ccttaaggta 180  
taatttactt attccacatg cattgctcta gttgcatgta taccatgaat ctaggacgtg 240  
gttcaaagag gaaaggagtg ggggaaagta gtgggaaaag ttgtatagca tgaatctagg 300  
acgtggttca aagaggaaag gaagggggaa agttgtatag catgaatcta ggacgtggtt 360  
caaagaggaa aggaatgggg gaaagtagtg gggaaagttg tatcacataa atctaggacg 420  
tggttcanag aggaaaggaa agggc 445

<210> 9269  
<211> 78  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB104-062-Q1-E1-G8  
<400> 9269

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tttcaactgtc ttgatgtt 78

<210> 9270  
<211> 370  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB104-062-Q1-E1-H10  
<400> 9270

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aaagcatatt gaaagtggag ggtgtaacaa atagtgatga tcacaacttt tcacattagc 180  
tagtcattct gttttctctg actattgatg cagtgtaggt agattgttat gaaggagcta 240  
cagaaaactc catcaagaaa atgtcaataa acttatgatg attgtaacct agattaagct 300  
taactagaaa ctacgtaatt tgtaacagtg gtaagggttt gctgcatgat tcatgctcat 360

taacanagct

370

<210> 9271

<211> 214

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-H12

<400> 9271

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cgccaatctg atttgttcta tgacctcttg atacttttaa cccccaatta attaaggcaa 180

tggcccccat gttaaaaaaa aaaatttaaat aaaa 214

<210> 9272

<211> 226

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-H3

<400> 9272

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actgaagaat gttccctgga aaataatgta catattgctg tcttttcttt ctcttgtaaa 120

taaaatgaac agtatagaaa ttccaggatg aaccaactag gaagacattt gcgttgata 180

ttaattaaaa cctattataa ttgttgaata ttcaattttg taaaaa 226

<210> 9273

<211> 345

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-H6

<400> 9273

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gggatttgaa ataaaacgat gggagatgtg ccacgctctt aaatgccagt cttctgtctt 180

aatcttgcta aattacttgt tgcattttgc aaaacagaaa aaaaaaaaaa aaaagcaaaa 240  
 aaaaataaaa catccaaaca attgcacaac cagaaatgga aaatgggaca caccatttaa 300  
 acggcccatt aaacacagaa aaaaaaaatg gggcccctca aaggg 345

<210> 9274  
 <211> 330  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-062-Q1-E1-H8  
 <400> 9274

cgggccgacg gggaaaatca ccacgacgga ctgcatctgc ccagacgatt gttgcaacgg 60  
 ccacgacaaa gtgcatctct caattccggg atcagcatgc tggatgaatc ctccttgctt 120  
 gttaagttgc aacggtgcaa ccaaacacca tggaggctta gggacggtga atctgcatcg 180  
 acagtgatgg atggaaattg ctgcacctcc ttctccata aaccacgggg accttgatca 240  
 gttgtattag cctccccatc tatccgtcag gaagccctga ctttccctgc tattgctgtc 300  
 gaaaatgcta cccttgacga acatgacctg 330

<210> 9275  
 <211> 293  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-063-Q1-E1-A3  
 <400> 9275

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 cggcttcacg gacttcagcg agttcatctc cttctgcaac gccaaacccg ggctcatgaa 120  
 ggacgtcgcc aaggtcttct gaatcagttc atttcacctc agccgtccga tccaggagcc 180  
 gatccatcta cgtacgggtt cgtatatcaa ttcatgcaa ctacctactc cgggtccgat 240  
 ccagcctcag cttcacctga ggccggccct aattttgttt gatcattttt ttt 293

<210> 9276  
 <211> 319  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-A7

<400> 9276

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gaggatttcg cgacgcacgg aggagacacg aacgatgttt ttttcgacga accggatcat 120  
gagcatcaga aacccatggc tcttcttatg gatttatatc caggagtgtc tacaggaata 180  
catagcatcg actaccagat cctattcaac cagaaaacta gctacctttc agaccatggt 240  
ggtggtgccg gcgacacttg ggctagtgga taacatcacg gccacaagt cgtggacaac 300  
atcctggaca tggtaaatac 319

<210> 9277

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-A9

<400> 9277

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tgatttgga tttgttagaa tactctatgt gctttgctta tatcagttga cttatacagt 120  
tttgctctgg tacttcactt atatttttta gggcacggtg gtggagtgtt tttatagaaa 180  
ctattgatct ctcaagcatc acttagatta ttctgagagt cttaaatagc atggtaattt 240  
tcttaaataa tcctaatatg cttggtgttc aagaatagta aaaactttct tatgagtgtt 300  
atgaatgcta tgagaagttt gatgcttgat aattgttttg agatataaag atggtgatat 360  
taaagttgtg ctagttgagt agttgtgaat ttgagaaata cttgtgttaa agtttgtgat 420  
tcccgtagca tgcacgtatg 440

<210> 9278

<211> 213

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-B1

<400> 9278

gggtcgaggg cgaagatatg attaagaagg ttcaggagct gaaggcgaaa gcgaaggctg 60

ctttggagaa tcggcggttc ttcgtgcatg aatctggaca agctggtcca atccgctcgtc 120  
 agaaaattag cgcaccatgt cggccctgaa taaattctgc ggctttcact cattgatgaa 180  
 cagattgggg ttgtttcctg cgtgcgtgga aga 213

<210> 9279  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-063-Q1-E1-B4  
 <400> 9279

gggtcgacgg gtcggtgtac gtcaggatac atacttgatc cttttctgct tcggggtggt 60  
 gagaaaaatc gtcttgcgag cacagtcgat gtttccttca aacttgggtca accaatccat 120  
 gcctagaatt acatccaaac tctgggattc caatactatg aggtctgcgg aaaaatcatg 180  
 gtttccgatg ctgagggtcg aatgacagcc taagcctgcc gtcacccctc cccctggggg 240  
 aaataactga aaccgggttc taagggttct agtgggcaac cgtactttt ccacaactac 300  
 ccttgatatg aatgaatgcg ttgcaccgga atcaaagagt accaatactg gatgtgaatt 360  
 taataaaaac ttaccaacca cagtgtctgg ctgatcatag acgtcttcca cgtcaagggtg 420  
 attcacc 427

<210> 9280  
 <211> 197  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB104-063-Q1-E1-B5  
 <400> 9280

gggccgacgg gtagctcaag acgctcacc agttcgctcg cagtcaagtc gaggcaagga 60  
 tgaagatcta cgccgtctca acgaggcatt atttcgcctt cggtgcccta gtctctgagg 120  
 aacactccta cgtcatcaat gcgttgcccta aactccgttg gggtcggtcca gaatcccatg 180  
 tgaatgtcaa attgcca 197

<210> 9281  
 <211> 298  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-063-Q1-E1-C5

<400>       9281

cccggggccga cggggaaccc aacatgactc tactcgagct aactgtcact cctgccttgt   60  
tcacatctat ctccctgcct ttcccctcct agtcatcccg tgagatggac agaccagcg   120  
cactccgaca atggctgccc acgcgactgc caaccacatt tcgatcgta tctccatcta   180  
ccatccgccc ctctgcttcc atttgcaatt ctctggggg atcgatttcc aggtctgctt   240  
ccagcgcaacc atcgtctggt aactcttcgg cattatctac acgctctggg tcatcacc   298

<210>       9282

<211>       109

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-063-Q1-E1-E11

<400>       9282

tcccgggtcg acggggacga cgacagtgtc tcggtggtgt acggtgattg tgtccgcgaa   60  
aagctagaag cctccaacaa tagcttcaca acggtcaaca tgatcttcg               109

<210>       9283

<211>       452

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-063-Q1-E1-E12

<400>       9283

gtcaggaggt cccgggtcga cgggccctta gccgacgtct cggtgcccga aggtggttgt   60  
gttggtggaa acaaggcaat cagatatagc agctttataa ctttcaacta gtcataggag   120  
cttaaagttg ggaggcgagc aagtagcccc ctgcttagtg tttggcgaca gccaaagtca   180  
agccgtaaac acttcggcca atgttatgaa cggcccgta tttaatatag ccacggatc   240  
actgaccggt ttatgcttta ttatggcagt cagttttcgg ctttctccac cgagggtgctt   300  
aaccatgcga gctggaagca caatcgcagt ggttatcctt ttgcacacct aaccgaacaa   360  
agcggaatgt aggaggcaag cacaggagcc gggcaaccca actatcgacc gaagacacaa   420



tttgaaaccg atgcatatTT agcaatatcc aa

452

<210> 9284

<211> 427

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-E2

<400> 9284

gggtcgacgg cagtcgctgg tctgactgaa ctgctgggac tatattaagt cgccggtctg 60  
cctgagccgc ctctgtcgcg attgtccgtc gtccgaaaga atcaagtcac atctctctaa 120  
atatatTTta ataacacatg ttgtTTTTaa ccaagaacaa attactttgg ccaaaatatt 180  
tttgtaaaca ggataattat tcaactacaaa tagggTTtat gccacgggtg tggaacacgg 240  
gctgatagtg ttccgcccag cgatagtctg tgacatatta cccgatgaat ggacgcgcac 300  
aagccgccgc cctagtggcc cggctcacat cgacttgagg ggatcgcggt tgttcgcttt 360  
tcaatggacg tgcgcaagtc gccgcccatg tggcttgatc tacatcaact agtccggacc 420  
aagcctg 427

<210> 9285

<211> 98

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-E4

<400> 9285

gggccgacgg gcacattaat cacaagtcac tctaaaagat ttatccgtat tgtcgcttcc 60  
cagccactgt aggtcacttc aagagagtat gccaaatt 98

<210> 9286

<211> 193

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-E6

<400> 9286

cgggccgacg ggcatacaag gtttaccgga gatcgggggtg atgtagagtg cgaagtcgcg 60

agtttgccac ttgttaaaga ttcctcccta catagcggtg tcatgccatg tgtggcttgc 120  
tctcaccagg gaagttgagt tgttgatatgt tgtgtagcag aatgatgctt tctgcctgtg 180  
gaagtaaaga cac 193

<210> 9287  
<211> 110  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-E7

<400> 9287

agtcccgcc cgacgggat cacaagaatg cctcggatca caccaataag gaccgcatc 60  
atactaagga ccgcgagcac aaggatggca tgattaagca catcatgacc 110

<210> 9288  
<211> 364  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-F10

<400> 9288

ccgggtcgac ggggattgtg aaagttcgga cactgtagac tactgaggtg ttcaaacaca 60  
gcgaaggcta aatcgactac taacggcaca gcaacatcac gatgacagct atagctattg 120  
acacagctca ggacgctctc gtgcatcatc gcacaatgta ggcgaaatcg atgaacgctt 180  
gggagaagtg tggcaaacag atacagtcgc aaggatatgt gcatgtgata tcatatctct 240  
gcaatgcttt acatgtctca cagatcatgg gacgtcgaat aataacctcg ctgcagtgaa 300  
cagcacggtg cttgtaacat taacgtcaat caatcatgtt ggcatcaccg catcgccgtt 360  
ggta 364

<210> 9289  
<211> 354  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-F4

<400> 9289

gggtcgacgg ggcggggacg gcgtcgggtg tgaggtccat gaacgacaag ttcgacctgg 60  
tcctcgtcgg acggagaggg gaggacaggg acgtcgaggg gtcggcgctc acaagcgggc 120  
tctcggagtg gaacgagtgc ccggagctcg gcgtgctcgg tgacatgctc gccaccgcgg 180  
agttcgcgtc caaagtgtcc atcctcgtca tccagcagca ggccgggatt accactggcg 240  
gcgatgccga ctatcaataa tagggactgg ttcgactttg gttcatcggt acattgtttc 300  
tttctcgttg aatatatgta tgtatgttgt aatgaaagca aggtaaattt gtcc 354

<210> 9290  
<211> 237  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-F9

<400> 9290

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gaaggttcat ttgtatcttg acagatgacc caacttctgc tgttcattgc agctgttttg 120  
aactatgaag aggatctcga tctacactc gtgtgtcagt tcaattacta ttttagatgc 180  
atgttgcgc tgtgttgttg cactgccagg tagacgtgca tgcgtcatca aagctca 237

<210> 9291  
<211> 419  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-G7

<400> 9291

at ttgacaca aagaaaaatg tcacggaaat ggtgccccga aaaattttcc ggccaaggat 60  
gcaacgcaaa gagccaaatc cgtggggggg ttgacgtcc tcgtgtcact gatgacctgt 120  
tgatgaagaa ggcatat ttt aggaagcaac aacttgacaa caaaacaaca tcacctaa 180  
ctaactgaag aggacagccc gtgtgatttg cgcttacatt gatatcgcat gcgtatgaat 240  
aatgggtccaa tggaattggg agcggagtaa gaagctcatg ttgcctttat gcatgtaata 300  
atcatgcctg cctgcatggc ccgctagctg ttggtccaat gcctggctgc ctgcctgaac 360  
tggcgtcaat ttccagtttg tttttgtaat atataataac tcttctgtat tgtgcatta 419

<210> 9292  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-G9

<400> 9292

tcaagaagtc cggggtcgac agtcaattaa atgtgtttgt ccaacgggcc cagaggatag 60  
 gcttgtcaac tgtagacctt tccacctcct gtgtgccact gtggcaaccc ctttttcta 120  
 taaaaggagg cccgagggtga ccaggagggg gattcggctc ttttgggcaa agttgcaccc 180  
 cgtagctagc tcaagaacac aagaacactc gaatacatcc accaaagcag gactacggta 240  
 ttacgcactt ttgtggcccg aacctgggta aacgatatgt gtgcttcctg tagaccgct 300  
 cttcgcacaa cctcgcaccc gccaaaccata aaagggatcc cagtgacccc atagggtgtcg 360  
 tttccactta cttctctggc gcgccaggta gggcgcgcaa ttgtgagaat ctgggtctggt 420  
 cggggcagcg acttcattat ggctgtcatt 450

<210> 9293  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-H2

<400> 9293

gggtcgacgg ggacaacaat gacctgagga gcaggcacca gcgcaagatc ctggagcgcg 60  
 caaggaagat gtcagagaag attgggatgc tggaagtgga aatgcagaag gtccagcagg 120  
 ccctggtgaa gtatgaggag gagcagacga cgtcgaaaac cgtgggttcag cgggtccaagg 180  
 tgcaactggt ggactatctc tacggtcgaa ggcgggaaag ccggaagccg cggttctcgc 240  
 cctgcgggttg catgagagcg aaaaccattg atgactgact ctgccttcgt tcgcgccgct 300  
 cctttttttt aaggcggagt gtggaacggt ggggttttca gtttcagatg gagcgactca 360  
 ttagttcatg tctttctacg taaatacaga aaaaaga 397

<210> 9294  
 <211> 472  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB104-063-Q1-E1-H4

<400>       9294

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gggcatgaca gtcttgaagg gcaaaggcat gggtcgctac tgggcgtcat tcataactcc   120  
tggcaaagcc gcttcccagg cagtgtacca tattccacgg acatttttgg tctccaagaa   180  
cacccgattg ggtgtacttg aggatgagct tggcaagcct ggaggcataa tcatcgagac   240  
agtgaggaga gatgacatct gcgtgttcat ctccggagcac aagcctgcac agataatgcc   300  
atgggataag catggatgcc agattaagct catagccgtt gaccacaaca ctccggggatt   360  
cgtgaactgc cccccgaaga agaccatcca ggaggtagtc tttgccagct tcggcaaccc   420  
ggtgggggtca tgccggaact tactgtagg aacctgtcac gttcccaatg cg           472

<210>       9295

<211>       336

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB29-001-Q1-E1-A1

<400>       9295

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gacgccagag cagtacgtcg tgaagctgga gcaatcaggc cagaccattt gcatcagtgg   120  
gttcatggcg ttcgacgtgc cggccctcg cggtccgctc tggatacttg gagacgtctt   180  
catgggcgcc tatcacaccg ttttcgactt cggtgagagc aggattgggt tcgccaaatc   240  
cgcgtgagga cttggtgtat caaggttcat ggccggtatt gtacatactg caagcacgtg   300  
caagttgcaa ggtcaacaat aaacttatac ggagta                           336

<210>       9296

<211>       433

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB29-001-Q1-E1-A4

<400>       9296

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 tgcagaagct cgtcctcaac atctccgtcg gcgagagcgg cgatcgctc actcgagctg 120  
 ccaaggtggt ggagcagctg agcgggcagt cgccagtttt ctccaaggcg aggtacactg 180  
 tcaggctttt cggcattcgt cgtaatgaga agattgcctg ctatgtgacg atcaggggtg 240  
 agaaggcaat gcagcttctc gagagtgggc tgaaggtgaa ggagtacgag ctcttgagga 300  
 ggaacttcag tgacactggg tgctttgggt ttggtattca ggagcacatt gatcttggca 360  
 tgaagtatga cccatcaacc ggcattctat gtatggactt cttcgtgggt ctggagcgag 420  
 ctggataacg cgt 433

<210> 9297  
 <211> 395  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-001-Q1-E1-A5  
 <400> 9297

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 ccgctctgtt atcgcatcgg acatcaatat tccatcatcc actctactgc ctctaatagc 120  
 aaagaggtcg agatatattt cgggtgctgga gttaagtggc ctaccattg agaagggtcc 180  
 agatggtatt ggagatcttt tcaatctccg ctatttgggt ctgctgggtt caaaagtga 240  
 gctccttcgc aggtctatcg agaaactttc aagtttggtg aactggacc ttccagggtc 300  
 tggcatgaac gagctgcta gaggcattgg tgaactataa aagcttaggc agttattcac 360  
 tgacaaagct attgatcgat ttacgacaga tttcg 395

<210> 9298  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-001-Q1-E1-A7  
 <400> 9298

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 gttcagcaag gttggcttcg tctttcgtga gcacaacagc tccccgggt actacgacgg 120

gcgatactgg acaatgttga aactgcctat gttcgggtgc aacgacgcca cgcaggtgct 180  
 caacgaggtg gaggatgtca agaaggagta ccctgacgcc tatgtccgcg tcatcggctt 240  
 cgacaacctg cgccaggtgc agtgcgtcag cttcatcgca ttcaggccac cgggttgcca 300  
 ggagtctggc aaggcctaaa ctacgagttg aagcaatggc ctatgtatga gtgtcctttg 360  
 tgaacttcac ttttgtccag gactctgctt tccgaccaga gcatatTTTT cgttcggtaa 420  
 gatctgtggt tg 432

<210> 9299  
 <211> 371  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-A8

<400> 9299  
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 gtacgacgac tatgtgcgca agtgggtgac ctctaacggt atcgagaaca ttggcaagaa 120  
 gctggtgaac tcgcgggacg gaccagtgc ctttgagcag ccaaagatga cagtggagaa 180  
 gctgctagag tacaggcaca tgctcgtcga tgagcaggac aatgtcaagc gtgtgcagct 240  
 tgctgacacc tacatgagcc aggcagctct gggatgatgct aaccaggatg cgatgaagac 300  
 tgggtaccatc tacggtgaaa gggcacatca tggtaacttg cctgtaccgg caggatgcac 360  
 cgatcggact g 371

<210> 9300  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-B3

<400> 9300  
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 ctcgttgctc ccctcctgtt ccagacagg gagttctaga tcgacctggt tacctgctaa 180  
 gagtgcacat tccgtttgga gcacctactt atcgatcga acgtgtttcg gctgtgatga 240

tagctaagct gactatctgt atctggtctg taatattgtg tgagcaaacc catggcaagg 300  
agctggtggt tgtgtgacgt tgttgagtct ggtttgcata atgtgtgacc taaggcattg 360  
ttgccagtat ttcaacagtg aagatacgct ctttggttgt atatatattg aagttgatca 420  
ttctctgttg 430

<210> 9301  
<211> 452  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB29-001-Q1-E1-B4

<400> 9301

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ggacagtttc tggagttgct ggtcctcttg tgattcttga caaagtgaag ggtcctaaat 120  
accaagaaat cgtcaacata cgattgggag atggcacaac taggcgtggt caggtgcttg 180  
aagttgatgg agagaaagct gtggttcagg tttttgaggg aacttctggt attgacaaca 240  
aatatacaac tgtgcaattc actggtgagg ttctaaaaac tccagtatca ctggatatgc 300  
ttggccgcat tttcaatggt tctgggaaac ctatagataa tggcccacca attttaccag 360  
aggcgtacct ggatatttcc ggaagttcta tcaatcccag cgaacggaca taccctgaag 420  
anatgattca gactggcata tctacaattg at 452

<210> 9302  
<211> 419  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-B5

<400> 9302

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tcatcttccg tgagcacaac gcatcccctg ggtactatga tggccggtac tggacaatgt 120  
ggaagctgcc tatgttcggg tgcaccgacg ccacacaagt gatcaacgag gtggaggagg 180  
tcaagaagga gtaccctgac gcgtatgtcc gcatcatcgg attcgacaac atgcgccagg 240  
tgcagtgcgt cagcttcacg gccttcaagc caccgggctg cgaggagtcc ggcaaggcct 300



aaacagctca ctcacgacag gccatatata aagtgccatt gcagttttgt caactctgac 360  
attgctttgg gttttccttc tccatttatc tttcttattt gttcctaaga atatgtgta 419

<210> 9303  
<211> 386  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-B8

<400> 9303

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tcatcttccg tgagcacaac gcatcccctg ggtactacga tggccggtac tggacaatgt 120  
ggaagctgcc tatgttcgga tgcaccgacg ccacgcaggt gatcaacgag gtggaggagg 180  
tcaagaagga gtaccctgac gcctatgtcc gcatcatcgg attcgacaac atgcgtcagg 240  
tgcagtgcgt cagcttcacg gccttcaagc caccgggctg cgaggagtcc ggcaaggcct 300  
aaacagctca ctcacgacag gccatatata aagtgccatt gcagttttgt caactctgaa 360  
attgctttgg gttttcctct ccattc 386

<210> 9304  
<211> 386  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-C1

<400> 9304

ccacctgtgc tgagaaatcg acggccagca cctcacctcc gccgccatcc tcggccacga 60  
cggcagcgtc tgggcgcagt cccccaactt ccccagttc aagcctgagg agattgctgg 120  
catcattgaa gactttgacg aacctggaca ccttgacca actggtcttt tccttgagg 180  
caciaagtac atggtcatcc aaggtgaacc tggggttgct atccgaggaa agaagggcac 240  
cgggtggcatc actatcaaga agacgggcat ggccctgatt ctcggtatct acgatgagcc 300  
catgactcct ggccagtga atttggtcgt ggagaggctt ggcgactacc tggtcgaaca 360  
cggtttctaa gcccgccctg atatgc 386

<210> 9305  
 <211> 362  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-C11

<400> 9305

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ggaggagttc tcccccaatc cctcgttccc ctccgcccta cacgttctcg cccacgtcgc   60
cgccgccagc tcttccccct ttcgccggag ctcttttctc cggcagtaga gatggtgaaa  120
gacgcagtcc gctatgagcc tggaccggcg tttcaggaga gtggagagca gggcaagctt  180
gagataccag catctggctc cacagaatth tggctaatac agtggcctcg aaaccatgta  240
aatgcttctg attttaatgg tcaagaagtt tctcttaata agcatcatga cgatggaaac  300
ttgggaaatt tggagagttc ttcggggaaa tcatatgaac tcgttagctt tgctgctcaa  360
ca                                                                    362
  
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<210> 9306  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-C5

<400> 9306

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ccgggtcgac cgccgcgggt aactagtgtc acgcaaccgt cgcgccccgt gcccgctcct   60
ccaccatcgt cgccagcctc ggcacccccg cgccctcaa ctctctctcc ttccgccccca  120
agtcctcag gaacacccca gtccaggccg cgcccgctcg acccgcttg atggacgccg  180
ccgtggagcg cctcaagacc gggttcgaga agttcaagac cgaggtctac gacaagaagc  240
ccgatttctt cgagccccctc aaggccggcc aggcgccccaa gtacatggtg ttccgctgctg  300
ccgaactccg tgtgtgcccc tcggtcaccc tgggcctgga gcccggcgag gccttcacca  360
tccgcaacat cgccaacatg gtcccgtcct actgcaagaa caagtacgct ggtgttggtat  420
cggccatcga atacgccgtc tgtg                                                                    444
  
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<210> 9307  
 <211> 357  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-C6

<400> 9307

gacacagata atgatggaga ggattaacta cgaggaattc tgcgctatga tgagaggagg 60  
gatgcagcag ccaataaggc tcaagtagtc tttccttgta gaaatggtgt accattagca 120  
actgttcttg gttccttttt tttcgtgct gcacggatga gaagttctct ttggcgttgt 180  
tgagatgatt gtgtatatct tgtggccttt tgctcgtgca tgttgttcct caagtgtttt 240  
ggacctactt tctgtaagtt ggtttttgca agtacatcta ataaaagagt atttttgcac 300  
gtcaaagggtg catattttaa aaaaaaaaaa aactaaaaaa aaaaaaagcg gccgctc 357

<210> 9308

<211> 269

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-C8

<400> 9308

tgatcagcta agagtgggtg ccctgcctcg agttcagcat gggtggcttc gtctttcgtg 60  
agcacaacag ctccccggg tactacgacg gccgatactg ggcaatgtgg tatctgcta 120  
tgttcgggtg caccgacgcc acgcatgtgc tcaacgaggt ggaggaggtc attgaaggat 180  
tatcctgacg cgtatgtccg cgtcatcggt ttcgacaacc tgcaccaggt gcacttcgtc 240  
agcttcattg cattcaggcc acctggttg 269

<210> 9309

<211> 388

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-D12

<400> 9309

gacaacttac aaggcttgaa ggggagaaga gcagctcaa gaggtcgggc agcaaacatg 60  
gcattctgct gccacacag caccacatcc ctgcgctccc catgcaccac catcccaaac 120  
tctggcttca ggcagaacca agtcatectc ttcacgacca gaagcagcag gaggagtaac 180  
acgaggcatg gggcaaggac cttccaggtc tcatgcgcag ttgagcagcc aatagtgatt 240

ggcctggcag cagactcggg atgtgggaaa tccaccttca tgcgccggct cacaagcgtg 300  
 tttggaggtg ctgcagagcc acccaagggc ggcaaccag actccaacac gctcatcagc 360  
 gacacgacga cggtcatatg ccttgatg 388

<210> 9310  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-001-Q1-E1-D6  
 <400> 9310

tacggtacgg atgttccggg tcgactacct gatccgctcc aagtgggtgc cttgcctcga 60  
 gttcagcaag gttgggttca tcttccgtga gcacaacgca tctcctgggt actacgatgg 120  
 ccggtattgg acaatgtgga agctgcctat gttcgggtgc actgacgcca cacaggtgat 180  
 caacgaggtg gaggaggtca agaaggagta ccctgacgcg tatgtccgca tcatcggatt 240  
 cgacaacatg cgtcaggtgc agtgcgtcag cttcatcgcc ttcaagccac cgggctgcga 300  
 ggagtccggc aaggcctaaa cagctcactc acgacaggcc atatataaag tgccattgca 360  
 gttttgtcaa ctctgacatt gctttgggtt ttccttctcc atttatcttt cataacttgtt 420  
 cctaagaata tgtgtat 437

<210> 9311  
 <211> 308  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-001-Q1-E1-D8  
 <400> 9311

accggtacga tattccgggt gacggtggtc ttttaagctgt cgggactcaa ttggccaatc 60  
 accttctagg tgctgacctt ctacgtgcgc ttactggcag ggactggagc aacgatcttt 120  
 ctactatttc gtccacatca gagatgcctt agcgtcgatg acggttaaca tcatgtagga 180  
 attggcctct gtggcatcca ccttcagatc ctgcttatca tgttttcacg aaacagcatg 240  
 acgaggactt cgccaccact ctgccgcact acactttaca atgctgcggc attccggtac 300  
 cagcagcc 308

<210> 9312  
 <211> 338  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-E1

<400> 9312

gtcgggaatac cgggtcgacg tcgacgtcat cgataaattg tgcgtctcga ctaacatcac 60  
 tagtctcgcg catgacacac atttgagcat gttcaagaac ttgacgagca aggtctgcgt 120  
 ttattgcaat gttgggagac aactcacia ctcttccacg gtttcccaca ggcagctcta 180  
 gactctcgga gtcgcatgtc acattggttg cattgggtcac ggcaagtatc gtcaggacac 240  
 gcagcacggc gctaatttca caagtttgag cgtcattac aatgacgatt aggtcgggtcc 300  
 cacacgcaca tgtgtcgtct ctatagtttc taggcact 338

<210> 9313  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-E7

<400> 9313

gggccgacga ggccttccaa gcaaagtatg atgtcaagcc gaacaatgcc attctcgccg 60  
 acgacaagca cttgcccattg tacgatgagt tgtccaacaa ggaaaatggt gaatacattg 120  
 ctggaggagc cagcgagaac tctatcaggg ttgccaatg gatgcttcaa actcctgggtg 180  
 caacaagtta catgggttgc attggaaagg acaagtatgg tgagcgagat gaagagcgcc 240  
 gctaaagctg caggagttac tgctcattac tatgatgatg acgctgctcc tacaggcaca 300  
 tgtgctgtat gtgttggttg tggtgaaagg tcattgattg caaacttata tgctgcgaac 360  
 tgctacaaat ctgagcatct aaagaatcca gagaactgcg cactagttga gatagcaata 420  
 tacatctaca ttgctggctt ttt 443

<210> 9314  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB29-001-Q1-E1-F1

<400> 9314

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acgctccgcc agatctgttc gtctacacgg cctctgctcc tcnccccccg gtgcagcagc 120  
ttcctcgggc cagcacaaag cagttcctgg ctcatcagtt caccaccggc attctgcagc 180  
tcaaagcgga gcactgctac atcgttgccg acctcaatgt ccacctcaag aaagagggcg 240  
ctagtgtga actctgtgtc ttcaactccg gcgccaccga ttggagaatc atcaccgagg 300  
tgcttgtga taagctccct gacctctggt ttaccgatga tgtgtttgct ttcgatggcc 360  
gtttcctttg ctgggtggac tacttcaacc gcgttgtgc 399

<210> 9315  
<211> 424  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-F11

<400> 9315

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ttgggttcat cttccgtgag cacaacgcat cccctgggta ctatgatggc cggtactgga 120  
caatgtggaa gctgcctatg ttgggtgca ccgacgccac acaagtgatc aacgaggtgg 180  
aggaggtcaa gaaggagtac cctgacgcgt atgtccgcat catcggattc gacaacatgc 240  
gccaggtgca gtgcgtcagc ttcacgcct tcaagccacc gggctgcgag gagtccggca 300  
aggcctaaac agctcactca cgacaggcca tatataaagt gccattgcag ttttgtcaac 360  
tctgacattg ctttgggttt tcttctcca tttatctttc ttatttgttc ctaagaatat 420  
gtgt 424

<210> 9316  
<211> 358  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-F3

<400> 9316

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ggaagatacc cttgcagaca ccgatacggg cgtcgcgggg gggagcccag tagaacttct 120  
ccatacgacc atcacggatc agaggggctg acaacgctga gaaatcgta ccagtgcga 180  
cgatgggcac acgtgggttc tcctccttgt tgtacatgcc tgggagctgc acattggtgg 240  
gggcatcggc gatgttcatt aggggtggcg tcaccatctg gttgttgacg gtgtactgtg 300  
tgggtcccgcc catcctaccc gcaccggcgt caagatcggt gatgaagagg cgtcgacc 358

<210> 9317

<211> 457

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB29-001-Q1-E1-F6

<400> 9317

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cgcctaataa aagagaagga agaaaagaga attaaagaag aagctgaaaa acaagcagct 120  
gaggaaaaca aagcacctga tgcctctcag gaagcagatt ctgaggacac taatgagaag 180  
gcacaagaag atgaaagcaa ggtagttgaa catcatgatg gagatatcac ggaccatgac 240  
aatcactcac cagaaggcga gacatctgtt gaagtgcctg acattaaagc tgggactgga 300  
gatgatgaac caccggtgga gacatctgca gtacctaccg aggagcagga ccctacttct 360  
gtcaactctg aaggtttgtc anaggcggaa ttgggtcgtc tggtagcttc tcgctggact 420  
ggagaaaatg tagatgatgt tggtaaaagc gataaaa 457

<210> 9318

<211> 328

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-F8

<400> 9318

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ccatcaccac cgggtccggc gaggagcccc tcaagttctc acagatgttc catttgctgc 120

cagctggagg gagcttcgac gtgcagaacg acatgttccg cctgaactat ggctaaggaa 180  
 gggcgaccgc tctggaggca ggcagcctgt tgagggattt atgttagcac agggaagatc 240  
 aggtggatat gctgcaggag tcgttgggtg gtcggcagct tgtgcaggtt ggcgcaggcg 300  
 gttgccacgg cttggggagg cagcgacg 328

<210> 9319  
 <211> 395  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-001-Q1-E1-G1  
 <400> 9319

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 cggggtacaa cgatgggccc gtaatgggac aaatgtggaa agctgcctat gttcgggtgc 120  
 actgacgcca cacaggtgat caacgaggtg gaggaggtca agaaggagta ccctgacgcg 180  
 tatgtccgca tcattcggatt cgacaacatg cgtcaggtgc agtgcgtcag cttcatcgcc 240  
 ttcaagccac cgggctgcga agagtccggc aaggcctaaa cagctcactc acgacaggcc 300  
 atatataaag tgccattgca gttttgtcaa ctctgacatt gctttggggtt ctccttctcc 360  
 atttatcttt cttatttggt cccaagaata tgtgt 395

<210> 9320  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-001-Q1-E1-G10  
 <400> 9320

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 tgtacgacga cgaggtgcgc aagtgggtga cctctagcgg tatcgagaac attggcaaga 120  
 agcttgtgaa ctgcggggac ggaccagtga cctttgagca gccaaagatg acagtcgaga 180  
 agctgcgaca gtacgggcac atgctcgtcc aggagcagga caatgtcaag cgtgtgcagc 240  
 ttgctgacac ctacatgagc caggcagctc tgggtgatgc taatcaggat gcgatgaaga 300  
 ctggttcctt ctacgggttag aacattctcc atacacacc accatctctt gctgcatatg 360



acgaggtaaa ggggcacagc aacgtacttt gcctgtgccg gcaggatgca ccga 414

<210> 9321

<211> 367

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-G5

<400> 9321

ttccgggtcg actgctacca ccaagacttc aagcatctca gctggtcaca ggcgagcgtt 60  
ggctctatca ggtggtatca ggtttccacg atgcgcgggtg agattctaca gtgtttcctc 120  
ggttacatcg actccgttcg gcatacctac agtccacacg ccggccacaa gggcaactac 180  
ggctagtcca tcatagccga accgctcgga gccattgcac agtcgttcta gggttttact 240  
ttggtgaatt tgcggttgca tcgtcgggtat agttgcgggt cttagcgtct agtcatttat 300  
agtttcgagt tctggtcatg agttgtcacg cagtcgccgc accgatcatc atcgcccctg 360  
ccagcta 367

<210> 9322

<211> 422

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB29-001-Q1-E1-G7

<400> 9322

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ccttcggcca aatccctgcc ttccaggatg gggatctgct tctcttcgag tcacgcgcaa 120  
ttgcaaagta cgtgctccgc aagtacaaga agaacgaagt ggacctgctg aggggaaggca 180  
acctgaagga agcggcaatg gtggacgtat ggacggaggt ggacacgcac acctacaacc 240  
cggccatctc gccgatcgtg tacgagagcc tcatcaaccc gctcatgcgc ggccctgccga 300  
ccaaccatac ggtggtggac gagagcctgg agaagctcaa gaagggtgctg gatgtctacg 360  
acgcgcgggt gtccaatcac gagtaccccg ctggggactt cntcagcttc gcggacctca 420  
ac 422

<210> 9323  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-G9

<400> 9323

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aggtaccgat ctacgaattc gcgactcgac attgtgacaa aaaagagcgg cacctcttat   60
tgattgtgtg tgtgtgtgtg ttgaggaggg gcgattcaaa tcagtggggt gaacttgtgg  120
tagtgctgtg tatgtatttt caaccataaa taggtaggga atggtagaaa aatgtgatat  180
aaagtgagag agaagtggac aacaagagag aataagataa tggatgatgca agtcagagaa  240
tcggaactat gcaacatgca aaatcacaaa aaagagggga aattatttcg aaaaaggga   300
aaaagggtgc aatggccata tgaatggtgc cctaccgcat gggttaaagt tctcaatggc  360
acaatggaaa cacctcgtgg tgcagagtcc cacatatgtg tgtttagcca taatataagt  420
agataga                                           427
  
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<210> 9324  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB29-001-Q1-E1-H1

<400> 9324

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ccattctcgc cgaggacaag cacttgccca tgtacgatga gttgtccagc aaggaaaatg  120
ttgaatacat tgctggagga gccacgcaga actctatcag ggttgcccaa tggatgcttc  180
aaactcctgg tgcaacaagt tacatgggtt gcattggaaa ggacaagtat ggtgaggaga  240
tgaagagcgc cgctaaagct gcaggagtta ctgctcatta ctatgaggat gaggctgctc  300
ctacaggcac atgtgctgta tgtgttgttg gtggcgaaag gtcattgatt gcaaacttat  360
ctgctgcgaa ctgtacaaa tctgagcatc taaagaagcc agagaactgg gcactagttg  420
agaaagcana atacatctac attgctggct ttttcct                                           457
  
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<210> 9325  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-H2

<400> 9325

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 cggctcttoga tgagtaccag cgcttcgccg ctgcgaaagt gaggagcacc gacctgagat 180  
 tcatggagct gttcgacgtc tcgagcttga agcacctgac caactcacat tgtaaccca 240  
 gggcgagtga tcgctcgccc ccgacgtcct cccagattct agtacatctc catgctgtcc 300  
 tccggcggtc actgaaccga atcagcagtg aataactttt ggaacccgta gaatgaatcc 360  
 atgagatagt ggcgagacct ctgcataaaa taagattgaa gaagaac 407

<210> 9326  
 <211> 275  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-H5

<400> 9326

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 ccactgtccg atatacctct ggtattctgt gcactgccct tgaactgtcc aatggtcattg 120  
 acatagatgt aactctgtg ccagcagggt tgcttcaaag atttgtcaga ctactcgggtg 180  
 ctggagatac cgaggttcct tacgtccttg atgctctagc aaggaaattg cgagcgccac 240  
 ggcggcctca ggatgcgctc gtcattacaa ctatg 275

<210> 9327  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-H6

<400> 9327

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gcttgcgtt cctgagcac aacagctccc ccgggtacta cgacggtcga tactggacaa 120  
 tgtggaagct gcccatgttt ggggtgcaccg acgccacaca ggtgctcaac gaggtggagg 180  
 aggtcaagaa ggagtaccct gacgcctatg tccgtgtcat cggcttcgac aacctgcgcc 240  
 aggtgcagtg cgtcagcttc atcgcttca gggcaccggg ttgcgaggag tccggcaagg 300  
 cctaaactac gagttgaaac aatggcctat ctcgatgaa ggtcttttgt gaacttcact 360  
 tttgtccaca actctgctgc acgactctgc tttcggaccg gatcatacct tttgttctat 420  
 atgatttgtg tacgtatgta cgaacatagg ttcttgagca 460

<210> 9328  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-H7

<400> 9328

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 agaaagacac agacattgct gaagcatggc aagttgggtga gagactgcaa ggtgatatcc 120  
 gatggaatat ggactaccgc gacaatgaat ttccctctcg ctttctatgg tatgccgagt 180  
 gcgtaccaca ctgggcatca ccagctcatg gatttgtgct ggtccctgat ggagtcgttc 240  
 ctagcagaac gttccagcat ttgacaagc ttggcgtgat gaaactctca aggtgtagct 300  
 tcagcttttc atcacctcca tttctctgct gccacagcct tagattttta tggcttgacc 360  
 actgtcaaaa cctaggaaag agaaatgggg cgcaatttgg agaagaggac ac 412

<210> 9329  
 <211> 359  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB29-002-Q1-E1-A3

<400> 9329

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tcgagatggg tggctgcaaa gctccaatta ccaccttcat agttgagccg tttgtccccc 180  
acgatcaaga gtactacctt tcagttgtgt ccgaaagggt gggtagcacc attagcttct 240  
cggaatgtgg aggcattgaa atcgaggaga actgggacaa ggttaagaca gtctttcttc 300  
cgactgagaa gccaatgaca cctgatgctt gtgctnccct tgattgcaac cttccactg 359

<210> 9330  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB29-002-Q1-E1-A4  
<400> 9330

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gagcaaaaga tggcattctc tctgcccggt tgctgaccat cttcgctctg atgctccctc 120  
atccactcct ggatgaaaaa aactgcatta cataaaggag tacaatcgcc agcgttactc 180  
gtactaattt gcatcacaca gcctatcttg aaaataagtt caaatatcta tatgggagaa 240  
agtcatgtac gtgtactatg aaaaagtttg tgtacgaaat tgctgatgac attattatcg 300  
atgtgttcat ttatataaca cacatagaga gttaatagca tatagatcct tcaaaaatag 360  
taggggtcca tttggacaaa caacgggtat tcgcaaaata gtttaacagg ataatgaaaa 420  
aagttaacag ttctcacaag a 441

<210> 9331  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB29-002-Q1-E1-A5  
<400> 9331

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ctcatggtca taaaaatcct atcattaatt caagtggctc ccggatatat atcccatga 120  
tggagtacac tagtataaat aattgttcta tgccaatcaa caacgttgag tggctcgtga 180  
accaccggca gagtcgttcc aagtgttaat tatttccagt tctccctcca ttgcacaca 240  
tagctccact acttctctat tatcggatgt aataatgatg cttagtctgt gatatgcttg 300

atagtgtgcg tctttgcata ctacgtgaca tgtctctagc angcaggcat gttggaacat 360  
gacaatatgg agacatagtc cagagcattt gcctttgtac ttcaatatca gacgttgtca 420  
ataattgggc atctaccttt ttccc 445

<210> 9332  
<211> 422  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB29-002-Q1-E1-A6  
<400> 9332

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tgtatatgaa aaaaagattg attgaacttt ccaacggact cattcgatga gtaaacgatt 120  
gaatgggatt cgcttgggca acgaaatcaa gtcctggtcc ccttttctct cttattgaat 180  
taactaattc atttcctttt tacttttggg tttttttttg atttgatttg gcattattca 240  
acaataaaaa aagaaaaatt tcgacaaatt cccttttttt aattatgtga taattatgag 300  
aaccaatcct actacttctc ctgcgggggc ttccacaatt gaagaaaaaa gtacaggctcg 360  
tatcgatcaa attattggac ccgtgctgga tgtcactttt cccccaggca agttacctta 420  
ta 422

<210> 9333  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB29-002-Q1-E1-B1  
<400> 9333

ggtcgggagc taacgggtgg acgcactcta ccctggagga agctttgacc cgcttggcct 60  
ggccgacgac cccgaggcat ttgcggagct caaggttaag gagatcaaga atggccgcct 120  
cgccatgttc tccatgtttg gcttctttgt gcaggccatt gtcaccggca agggccatt 180  
ggcgaacctt gccgaccaca ttgctgacct tgtcaacaac aacgcgtggg cattcgccac 240  
caacttcgcy ccggggaagt aagacatgaa tgatggttgg gagttgtatg tgagtgtcag 300  
ttgaattgta acaccaacat gttaaatatg agaattgtgt gcaaagacat tgtttgattg 360

gtccaaaacg aggcaacaaa acacatctaa atcggcataa aaccaaaaaa aagcgggcg 420  
tct 423

<210> 9334  
<211> 408  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-B10

<400> 9334

gggtcgccga cgactggcca ccagatctac aagcttggag gcattgacaa gcgtgtcatc 60  
gagagggttcg agaatgaagc cgctgagatg aacaagaggt ctttcaagta cacgtgggtg 120  
cttgacaagc tcaaggccga gcgtgagaga ggtatcacca tcgatattgc tctctggaag 180  
ttcgagacca ccaagtacta ctgcaccgtc attgatgctc ctggtcaccg tgacttcatc 240  
aagatcatga tcaccggtac ctcccaggct gactgtgctg ttctcatcat cgactccacc 300  
actggtggtt ttgaggctgg tatctccaag gatggtcaga cacgtgagca cgccctcctt 360  
gctttcactc ttggagttaa gcagatgatc tgctgctgca agaagatg 408

<210> 9335  
<211> 430  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-B3

<400> 9335

cgggtcgaca ccttcaaag gatatttgat gagtttgta agatgatggg aggaaaaaga 60  
ccaattacca ttttgacaga ccaagccagg gcaatggagg tcgctattgc ggacgtatat 120  
ccagatgcga cacacagatg gtgcaagtgg cacatcctca agaaggccaa agagagcctg 180  
gggtctaatt acaccaagaa gtctgatttc agggcagaat ttcacaagct ggttcacgaa 240  
atgctcacta tcgaggagtt tgaggacggg tgggcagcgt tgcttgagaa gtattcactg 300  
aagaataaca catacctgat gcaaatttac aagacaagac agaaatgggc caagccatac 360  
tttgcaggga aattctgtgc gaggcaaacc agcaacggga ggagtgagag cgcaaatac 420  
atgttgaaat 430

<210> 9336  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-B4

<400> 9336

gccataggat caggggactg gttcaagacc atcatcagca ggaagaagtc gaaccggggc 60  
 aagtcaaagc acgcacaggt tgctgcacaa cgcaatggag ccaacctgcc gcatcacaag 120  
 ccgagcaacg ctccatcttc cagcatcgac cctcaagaca ccgcagcact ggaagactgg 180  
 gcaacgaccc ggattcaaaa cgcgtttcag cgccacaaag caacgaggac gctccgttgc 240  
 ctgaagcgac ttcaaccact gagcattggt gggcacagca atcgagttac cagccagacc 300  
 agtgccacac tgaactccat aaattcggtc cacaagtcta aggctgagcc tacacaacgg 360  
 cgtgccttca tcgtccccga tgggctcaac acg 393

<210> 9337  
 <211> 383  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-B5

<400> 9337

ccgggcgagc atgcatagag agtacgcgga tggctcttgc ccgtgtcaag acatactggg 60  
 cagagatgaa ggccaccgat gttgcatccc cagattcgga cggaagctga gtacctatcg 120  
 agcaatattt tcaggaagtt ctgcatggcg ctcgtttaat agagacgcag tgcttgaagg 180  
 atattatggt cgaataacat gtattattgt gaaacaatgt ttcgatgtaa tataaaagct 240  
 ttttatactt gtgccttcaa gaattaaaat acctcctgtg cggacgttaa tgtatatgtg 300  
 tatataaccc gactgatggc agtcttcggc ttcagcccc acgcatataa tgccgggggt 360  
 gtatggcaaa atgtgcattt tca 383

<210> 9338  
 <211> 464  
 <212> DNA  
 <213> Triticum aestivum



<223> unsure at all n locations  
<223> Clone ID: LIB29-002-Q1-E1-B6

<400> 9338

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tcgtcttcg tgagcacaac agctcccccg ggtactacga cggtcgatac tggacaatgt 120  
ggaagctgcc tatgttcggg tgcaccgacg ccacacaggt gctcaacgag gtggaggagg 180  
tcaagaagga gtaccctgat gcctatgtcc gcgtcatcgg ctctgacaac atgcgccagg 240  
tgcaatgcgt cagcttcatt gccttcaggc caccaggctg cgaggaatcc ggcaaggcct 300  
aaagtgcaag ttgaagtaac cgatatacat gtcattgttag tcacatttgt cggcggctct 360  
gctttctcag ttttacttct cgttctactc atatgtgaat atatgagcat atgtatgtaa 420  
gcacttacca atgtaggctg angaggatgc atatgagaga tata 464

<210> 9339  
<211> 312  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-B7

<400> 9339

cccgggccga caccttccca gaacaatcca tcgacttttt cgggtgctctg cgtgctcggg 60  
tgtacgacga cgacgtgcgc acgtgggtga cctctaccgg tatcgagaac attgtgaaca 120  
agctggggaa ctgcggggac ggaccattga cctttgagca gccaaagatg acagtggaga 180  
agctgctaca gtaccggcac atgctcgtcc attagcacga caatcgtaag cgtgtgcatc 240  
ttgctgacac ctacatgagc caggcagctc tgggtgatgc gaaccaggat gcaatgtgga 300  
ctggtgactt ct 312

<210> 9340  
<211> 443  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-C1

<400> 9340

ctctacattt cacacatcca ggtgaaccaa gcccaaaagc agaggcgccg tacataccgt 60  
gctcatggac gdatcaatcc ttacatgtcc aaccttgcc acattgagct gatcttgtca 120  
gagaaggaag agccagtga gaaggaggct gacaacgtcg tcgcaccaag gaaagctatc 180  
taagctaacg gagtggctgc attcgtccaa gaatcttagt tgtagttctt ctcaagtacc 240  
tttgttggca gtgtttgttg cctccttgat gtttttgta ccaacatgga gtaaggattt 300  
gttaaggttg atgttatcct tgtgattgag agtgggcctt atatgctaaa acagtttcag 360  
atatttgagc agtagccac cagaacttat ttctcagaga tgctggacct ttccggctgt 420  
tcgagtatta tatccacttt ttg 443

<210> 9341  
<211> 421  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB29-002-Q1-E1-C4  
<400> 9341

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ccatggattt cgacttttca ccttatgtga gtgctaattg aggagtcgaa caaaagtatg 120  
acttatatgg agtcattcat cataggcagt atggcccaaa aggtgggcac tattggtgct 180  
tcaccaagta taatggagaa tggtagaga tcaatgacga acgggttaca tctatcacta 240  
aggaggggtg agaaaagaaa acaaagaaag ttatatcttt ttctataaaa tgaaaatggg 300  
agaacattct gaaccacatg gcgagcgtgc aactgaagac gacatcccaa gacggacgga 360  
cgctgatccc ttacttttca ggccccacc tgatgaagat acccccaggc tatctgataa 420  
g 421

<210> 9342  
<211> 298  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB29-002-Q1-E1-C5  
<400> 9342

agacgacaga aggggagagg aacatcaggt tttagcatcg cgatttcctt agaagcgttg 60

cgcgagagaaa tctcgtcggg ttgttccccg aattccagcg caaagatgcc gcgcattccc 120  
atgatcagat tccccagag gcattctaaa gtcccatccc caccagcggc gcagcctgca 180  
gatcagcagc cgaccctcat gtcccgattg ggagctaaag tagaggcacc atcttctgga 240  
gagaaaaaga attaccggtt cagatcagat gtgccttccg caccttctca taatgctg 298

<210> 9343

<211> 480

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-C6

<400> 9343

acggtcagga cttccccggg ggcctcctac ggcaccgaca agatccccga caggagatc 60  
ctcaagctcg tgaaggagaa ctttgacttc aggcttggga tgatcagcat caacctggac 120  
ttgaagaaag gtggaaacag gttcatcaag accgctgctt atggtcactt tggccgcgat 180  
gatgccgact tcacctggga ggtggtgaag cccctcaagt tcgacaaggc atctgcctaa 240  
gaacaagaaa tcacattggg gttattcttg gtctgctgcc tatcaagttc gacaaaggcg 300  
ggatcctttt gtccttggga agtaagaaga agcattcgac atcaccgga cgtgctacac 360  
tggtcgtgcc gtctagtcat cagtgcctaa ttttcttact ggtgtatcat ttcatatatt 420  
tttctttttc tttttgagtg tgctgaaact gctgagtcat gtgcaatttg ctctgtcact 480

<210> 9344

<211> 462

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-C8

<400> 9344

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cggcgatgga tatggagagg agctcgggtc ttccttgtgt atattagggc agcagtagtt 120  
ttagtttgtc ttggcttcat gccgtggtct ggcgttatgc cgtggggatg caaaccactg 180  
gagctctcga gcggcgtctg gtgggtggcct ccgtcgtttt ctttcttgcc accatggtgg 240  
tggaaagtgg aagacgccgg atctggcaag atccccctga ataagctcgt tctggtggtg 300

tgggtgttccc tgatctggag ggcattccaac tgctactgct tgttttctca ggctaccatg 360  
 gtgggtggatg agaagcagga tagttgcaga atcctgaagt ttataggctg agttcgagca 420  
 tatcagcaga ggtccctttg gtggagcgac gggcgccatc ga 462

<210> 9345  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-C9

<400> 9345

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 ccacatcgct caatacaaag aggcttgatg atgatacaga gaatcttgct catgagcgtg 120  
 tgccgtcaga cctgaagaag agcattatgc aggctagaac ggacaagaag ctacacacagg 180  
 cacagcttgc acagctgatc aatgagaagc cacaagtcac ccaggagtac gagtcaggca 240  
 aggctatccc aaaccaacag atcatcggca agctggaaag ggctcttggc acaaagctgc 300  
 gaggcaagaa gtgaagctgc gtgcatctga caggagtcga gtctttcaag agaggagctt 360  
 ggctgggcaa gtttaccgct aaataaagct tgtctactaa atcatgcgac ttaagaaaac 420  
 cctggagttt ggtatttcgc tttggtttgg gtgaatg 457

<210> 9346  
 <211> 385  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-D2

<400> 9346

ggggtggccga ccgtgaacct gaaggggggtg gacacctccg ccgtcctcgc cgacgcctcc 60  
 agcaccgtcg caaccatcat cggcaagccg gagaactatg tgatggttgt tctcaagggc 120  
 tcagtgccca tggcggttcgg aggtaccag gagcctgcag cctacgggtga gctgggtttcc 180  
 atcggagggc tgaacctga tgtgaacaag aagctgagtg ccggcattgc ttccatcctg 240  
 gagtcaaagc tgtccatccc caagtcccgc ttctacctca agttccatga ttcaaagcgc 300  
 tcggactttg ggtggaacgg atcgaccttt tagacgcctc atatggcgtg gagtcctgta 360

tgaacttcac agttcctagt attct

385

<210> 9347

<211> 427

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-D8

<400> 9347

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atgttctgct tgccgtgact ggtatggatg gcaccgacga atttgacgat gcgggccaca 120  
gcatggatgc caaggcgta atgaacgatt acttcattgg ggagttggac ttggacgaag 180  
cacctgacat gcctgagatg gaggttttca ggaaagagca ggacaaggac ttcgccagca 240  
agctggtgga ttacgctgtg cagtactggg ccattccggt agcagcagcc gggatatcag 300  
ccgtggttgc catattgtat gcacggagga agtgatgact ggctatacgt tgattgaaga 360  
accatttttg ggtaacacac acatttatag cctgttatgg atggagaaat tatgtacttc 420  
ggtccaa 427

<210> 9348

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-D9

<400> 9348

cactaaccat cagatctaca agcttgagg tattgacaag cgtgtgatcg agaggttcga 60  
gaaggaagcc gctgagatga acaagcggtc gttcaagtac gcctgggtgc ttgacaagct 120  
gaaggccgag cgtgagaggg gtatcaccat tgatattgcc ctgtggaagt tcgagaccac 180  
caagtactac tgcaccgtca ttgatgcccc tggtcaccgt gacttcatca agaacatgat 240  
tactggtacc tcccaggctg actgtgctgt gctcatcatt gactccacca ctggtggttt 300  
tgaggctggt atctccaagg atggccagac ccgtgagcac gccctccttg ctttactct 360  
tggagtgaag cagatgatct gctgctgcaa caagatggat gccaccactc ctaagtactc 420  
gaaggctcgt tatgaggaaa 440

<210> 9349  
 <211> 197  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E10

<400> 9349

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 gatgtgcgca agtgggtgac gtctaccggt atcgagaaca ttggcaagag gcttggtgatt 120  
 tcgcggggagc gatcagtcac ctttgagcat ctatagtcga caggctagaa actgctacag 180  
 tagtggcata tgcacgt 197

<210> 9350  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E5

<400> 9350

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 ctaatctcgt ctccgatcga ctcgaggctt gtcgaatcct ccttccccac cgcctcaaga 120  
 tgcagatctt tgtgaagaca ctgacgggca agaccatcac ccttgagggtg gagtcgtctg 180  
 acaccatcga caatgtcaag gccaaagatcc aggacaagga gggcattccc cctgaccagc 240  
 agcgtctcat ctttgtctggc aagcagctgg aggatggccg aaccctcgct gactacaaca 300  
 tccagaagga gtccaccccc caccttgctc tgcgtctgcg tgggtggcatg cagatcttcg 360  
 tgaaaaacct caccgggcaa gaacatcact cctggagggtt gagagctctg acaacatcga 420

<210> 9351  
 <211> 348  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E8

<400> 9351

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tcattgggaat cctacagcac tatgtccgta accgcgctag gccagaacga agcatctcca 120  
 tggggccatca cagataggat gtcattggag ttttgtgttg acttcattcc tgaccttaag 180  
 aagatatagt ctccctaaat cgtggtatga agggagactg actggaaacg gcacgcttgg 240  
 tggggactca tcaatatgca cggaccgcta ttcttgatcg catccagaca agacagttct 300  
 acacaactct aacttggcga ccccatatct ccattgccac aatatcag 348

<210> 9352  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-F1

<400> 9352

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 atgcaggacc ctctgcggg cataagcggg gcgccgcagg acaacaacat aatgctgtgg 120  
 aatgctgtga tttttggccc tgacgatagc ccctgggacg gaggtacgtt taagctgact 180  
 ctccagtta atgaagaata tcctaataag ccaccaacag ttcggtttat ttctcggatg 240  
 tttcaccta acatttatgc tgatggaagc atatgcttag atatcctaca gaatcagtgg 300  
 agcccaatat atgatgtagc tgctatacgt acatctatcc aatcgctgct gtgtgatcct 360  
 aaccgaatt cgcctgctaa ctcagaagct gcccgcatgt tcagtggagaa caagcgagag 420

<210> 9353  
 <211> 191  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-F6

<400> 9353

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 tctaattgtt cgtcgctgtc atattgatcg ggacatgtca tcgaaggggt ggcttgcaaa 120  
 tttggttcga gtgagtttgt tcacattatc gtcagtgttt gaagttacgc gactgggtgc 180  
 attcgaccat g 191

<210> 9354

<211> 350  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-F7

<400> 9354

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 aatgagagtg caagttcctg agaacaagcg acgtgagtct acattgaagg gcatcgatcat 120  
 agcacggcgc aatgctggga tcgctacgac tttcagattg cgtagattac tagctggcgt 180  
 tggcgttgag tctgtctttc cactgtactc gccaaatatt aaagaaatta agatcttaga 240  
 caggtagaga gtcaggatag caaagctgta ttacctgatg gacagaatga ttgcactgat 300  
 gaaatgagac accatcagct tggttcttgc cattttgttt ctgatgtgga 350

<210> 9355  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-G1

<400> 9355

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 ggaggacaag gagatgcaca tctctcteta cgctgctcg aattgccagc accaggagat 180  
 tgctactgat tcttgtgtgt acaaaagggg tcttcggaaa tctgctgatg aacctaaaga 240  
 caccctaaaa gacgcagctg ctgatgcgtc tctgccacgc accagaagtg ttaaatgcta 300  
 caactgtagc tatccagaag ctgcttattt ccaggccccg acgacaggag aggttggcct 360  
 gacgctatac ttcattctgt gcagccctac ctgtggccac aggtgggtgg actgactgac 420  
 tgacaagggg gaaccctcca 440

<210> 9356  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-G11



<400> 9356

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tgtcaccaca aacagaaact aaagcaggtg ttggatttaa agctgggtgtt aaagattata 120  
aattgactta ctacacccca gagtatgaaa ctaaggatac tgatatcttg gcagcattcc 180  
gagtaagtcc tcagcctggg gttccgcccg aagaagcagg ggctgcagta gctgccgaat 240  
cttctactgg tacatggaca actgtttgga ctgatggact taccagtctt gatcgttaca 300  
aaggacgatg ctatcacatc gagcctgttg ctggggaaga cagccaatgg atctgttatg 360  
tagcttatcc attagacctt tttgaagagg gttccgttac taacatgttt acttccattg 420  
t 421

<210> 9357

<211> 297

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-G7

<400> 9357

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aagaaattca acgaaggcat catgcgagac atactggacc cgctgctgga agatcgcgctg 120  
gacgaagacg tgttggaaga agcttcagac tgtgggggttc cagtgcgacc ctctcacaca 180  
ggacgaccgt ctcacggtaa ccgaggtcct ggagcagctg tgggacatca ggaaaggcga 240  
tcggatgcgc ttcaggatcg catccaatca tttgctcatt taatcacgac cagtgca 297

<210> 9358

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-G9

<400> 9358

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ctcgcggaat acgtgtggca gcagaggccg cgcttctcct gctccagagt tgctcgagctt 120  
ggtgcaggaa cctcgctgcc aggtatagta gctgcaaaag ttggagcagg tgttacgctg 180

acagacattg cacataatac agaagtgctg gacaacatca agcaagtatg cggcctcaat 240  
aatgtgaact gtattaggac ttacttgggg agattgggat gaacctgttc ttgatttgca 300  
ccctgatatt attctcggag ccgatgtgct ttatgattca gcaaaatttg atgatctctt 360  
cgcaatgggt accttcctgc tgggaaattc tctgtggca gtgttcatca ccacataaca 420  
gaatcgcagt ggtcatcact tga 443

<210> 9359  
<211> 365  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB29-002-Q1-E1-H11  
<400> 9359

ccggaaatcg ccggtcgaca ccttccaacg acaatccatc gactttttcg gtgctctgcg 60  
tgctcgggtg tacgacgacg aggtgcgcaa gtgggtgacc tctaccggtg tcgagaacat 120  
tggcaagaag ctggtgaact cgcgggacgg accagtgacc tttgtgcaac caaagctgac 180  
agtggagaag ctgctagagt acgggcacat gctcgtccat gagcaggaca atgtcaagcg 240  
tgtgcagctt gctgacactt acatgagcca ggcagctctg ggtgatgcta accagtatgc 300  
gcataagact ggtaccttct acggttagaa cattctccat acacaatcac catctcttgc 360  
tgcatt 365

<210> 9360  
<211> 375  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB29-002-Q1-E1-H2  
<400> 9360

cgggtcgacc gccgcgggta acaggtgcta cgcaaccgtc gcgccccgtg cccgctcgtc 60  
caccatcgtc gccagcctcg gcacccccgc gccctccaac tctcctcct tccgccccaa 120  
gctcatcagg aacaccccag tccaggccgc gcccgctgca cccgcattga tggacgccgc 180  
cgtggagcgc ctcaagaccg ggttcgagaa gttcaagacc gaggtctacg acaagaagcc 240  
cgattttctt gagccccctca aggcgggcca ggcgccaag tacatggtgt tcgctgctgc 300

cgactcgcgt gtgtgccct cggtcaccct gggcctggag cccggcgagg ccttcacat 360  
ccgcaacatc gccaa 375

<210> 9361  
<211> 325  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-H4

<400> 9361

gacctgatcc gctcaaaatg ggtgccttgc ctcgagttca gcaagggttg gttaaccacc 60  
gttcagcaca aggcaccccc tgggtactac gatggccggt actggacaat gtggaagctg 120  
cctatgttcg ggtgcaccga cgccacacag gtgatcaacg acgtggaaga ggtcaacaag 180  
gagtaccctg acgcgtacgt ccgcatcatc ggattcgaca acatgcgcca cgtgcagtgc 240  
gtcagcttca tcgccttcac gccaccgggc tgctacgagt ccggcaaggc cgacacagct 300  
cactcatcac cggccacata taaag 325

<210> 9362  
<211> 391  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-H6

<400> 9362

ggtcgcctac ctgatccgct ccaaattgggt gccttgctc gagttcagca aggttggggt 60  
catcttccgt gagcacaacg catcccttgg gtactacgat ggccggtact ggacaatgtg 120  
gaagctgcct atgttcgggt gcaccgacgc cacacaggtg atcaacgagg tggaagaggt 180  
caagaaggag taccctgacg cgtacgtccg catcatcggc ttcgacaaca tgcgccaggt 240  
gcactgcgtc agcatcatcg ccttcaagcc accgtgctgc gaggagtccg gcaacgccta 300  
aacagctcac tcaccacgga ccacatataa agtgccattg ctgttttgtc acctctgaca 360  
ttgcctttgg gttttccttc tccattttat c 391

<210> 9363  
<211> 438  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB29-001-Q1-E1-A10

<400>       9363

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aggtaccagt caggaattcc cgggctcgac tccaagataa agctggtgaa ttgccgaaat   60
tagtagagga tcttcgccag acgtcgatta gcacagggcc tcgaggtgcc tttaggatgg  120
cgcaagggat ccaagctctc cttgggggttg gcggggagtg gctaaatgac ttctcgaaga  180
cagctaacac gtcagaagga attccagctc agatgcgtct tggtttgctt tcccctcttt  240
acctcagaag gctttttgaa cgcattgggtg caacttatat caagctaggt cagttcatag  300
cgtctgcacc aacttccttt cctgcagaat atgttgaaga attccagaac tgttttgacc  360
gagcaccacc tgttccttat agcgagatcg agtcgatatt gcgtgaggag ttgcagcggc  420
cattggatag tgtctatg                                     438
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<210>       9364

<211>       352

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB29-001-Q1-E1-A11

<400>       9364

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agataaccat gtatggtata tgtggatgat atggccaatg gcatggctat caatggtact  120
agcatgggtt tatggatcat ctgcgtttgt cgtcgaaagt ctcaagctga agaagatcat  180
gatgcaaaca tggctgatac caagatacaa cttccagtac agcctgatta gggagagggg  240
atccatcaat acgttaattg agcaggcaat atcagatgcg gatcaaagag gggtaaagt  300
gctcagtctt ggacttttca gtcaggaaag acgactcaat ggaagtgggtg aa          352
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<210>       9365

<211>       439

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB29-001-Q1-E1-A12

<400>       9365

ggtaccagtc aggaattccc gggtcgacgg tgccggttct cgggggtgcc tcaggggacc 60  
 aaagcagggg gttctgctcc gtccggcgct tcgcaggaga tagcgctgcc gtcgaggagc 120  
 cggagaatgg acttgccgca ggcgatctgc aggtatctgt gcaactcgat gttgtggtac 180  
 atacagtagg acggccgctt ctagacatgt gtgttctaca gaattgtcta gtagtggtac 240  
 gtagtaccat gaatatttag gatgctctgg ttttgaagat tacattatat tttccgcaaa 300  
 aaaaaattac attatatcta tatatatatg caacaggga ggtaagcaga taacaaccat 360  
 tcaggatgct ggcctacga tcatgtgatc tttctccttg attaaagaaa atttagtgga 420  
 tatcatcgtg attctcact 439

<210> 9366  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-A2

<400> 9366

ggtccggatt cacgggtcga catggcgacg gtcagaagag agaacctgag gcgcctcttc 60  
 atgtacatag ataagttgcc cacggtgatc cccgaatctg ttttcgaggt atacgattcc 120  
 cacgtaaagt gaccctgtgc tcggctcggc gctgcgcaa ttgttcatca gttgggtact 180  
 gctagtgtcg tagacattac caattgttcg tcagtggggg gctgctagtg ctgtaggcat 240  
 tgccggttgt tcatctgtgt getgctgcta atgtttaga catttctgga gccccgggcg 300  
 ctggctgcct cgagcttatg aacgctccga gcagttcgcc ggggaagctc tgtatgtatg 360  
 tgacgtactc ctatatat 378

<210> 9367  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-A6

<400> 9367

gggtcgacgc tttttttttt tttttttttt tttttttttt ggataattgt ttgtcactca 60  
 tagatgcctt gataataatt gttttattac cattaacgga cacattaata gctagtgcac 120

agaatacaga ttcttggtac catcaatgct aatctgcccc cttaaacttg aaaggcaaatt 180  
agctaattcc aacagcatca gaggagaagg ggcagctcaa acttttaaatt gcgaaggcgc 240  
taccggcgat gttctttgtc gagggcatac cggcagtaac atcttcttcg atgccacatt 300  
cattcttgcc ccttatgata ttgaagtacc cgtcatcgcc ccagcctctg ttccactgat 360  
ttgcaagaag ccagtaatcc tcgccagcat cactaatttc ccaaccaatc 410

<210> 9368  
<211> 410  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB29-001-Q1-E1-A9

<400> 9368

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acattgtgtc ccacaacgag ctcatctcga tgtgggagag gaaagcgggc aggactttcc 120  
agatcgtgcg catccccgag gcgggtctcc tcaagttgat caaggaggcg gctttccctc 180  
tgaacatatt gctgtccctc gcgctctcca tcttcatcgg gggcgtagag gccaaacttg 240  
agattgaagc atcctttggc gtcgaggcca ccgagctgta ccccgaccta aagtacacca 300  
ctatcgacga gtatctcgag caccttcact gacagctttt ggctggctgg aatggcacca 360  
tccacagtcg gcatcaacaa tcangatgat gaacagggtgg atcctccaaa 410

<210> 9369  
<211> 376  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-B1

<400> 9369

gggtcgacga ccaactggcca tcagatctac aagcttggag gtattgacaa gcgtgtgata 60  
gagagggttcg agaacgaagc cgccgagatg aacaagaggt ctttcaagta cgccctgggtg 120  
cttgacaagc tgaaggccga gcgtgagagg ggtatcacca ttgatattgc cctgtggaag 180  
ttcgagacca ccgagtacta ctgcaccgtc attgatgctc ctggtcaccg tgacttcata 240  
aagaacatga ttactggtac ctcccaggct gactgtgctg tgctcatcat tgactccacc 300

actggtgggtt ttgaggctgg tatctccaag gatggccaga cccgtgagca tgccttcctt 360  
gctttcactc ttggag 376

<210> 9370  
<211> 426  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB29-001-Q1-E1-B10  
  
<400> 9370

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gttgccagag tacgattaac ctctggattt gaaatcactg cttatatacc tggatttggc 120  
cataatttac aagaacattc tgtactatta gtaagaggag gaaggggttaa ggattttacc 180  
ggtgtgagat atcgcattat tcgaggaacc ctagatgctg tcgcagtaaa gaatcgtaa 240  
caagggcggtt ctaaatatgg ggtcaaaaag ccaaaagaat aagtgatttt agcccttata 300  
aaaagaaaac ggattcttga acctctttca cgcctcatgtc acgtcgaggt actgcagaac 360  
aaagaactgc aaaatccgat ccaatttttc gtaatcgatt agttaacatg gtggtaaac 420  
gtatta 426

<210> 9371  
<211> 437  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB29-001-Q1-E1-B12  
  
<400> 9371

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gttgaaagtc tcaagaagat gaacaagaac aagaagcttg ttaagaagct agccaagaag 120  
taccatgctt tcttggcatc agaggccata atcaagcaga tccctcgtct ccttggccct 180  
ggtcttaaca aggcaggcaa gtttcccact ctggttagtc accaggaatc tcttgaagcc 240  
aaggtcaacg agacaaaagc tacagtcaag ttccagctaa agaaggttct ttgcatgggt 300  
gttgctgtag gcaacttgtc gatggacgag aagcagatcc aacaaaacat ccaaatgagc 360  
gtcaacttcc ttgtgtccct cctgaagaag aattggcaga atgtgaggtg cctgtacgtg 420

aagagcacca tggggaa

437

<210> 9372

<211> 419

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB29-001-Q1-E1-B2

<400> 9372

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cgtgctcggg tgtacgacga cgaggtgcgc aagtgggtga cctctaccgg tatcgagaac 120  
attggcaaga ggctggtgaa ctgcggggac ggacccgtga cctttgagca gccaaagatg 180  
acagtggaga agctgctaga gtacgggcac atgcttgtcc aggagcagga caatgtcaag 240  
cgtgtgcagc ttgctgacac ctacatgagc caggcagctc tgggtgatgc taaccaggat 300  
gcgatgaaga ctggttcctt ctacggttag aacattctcc atacacaccc accatctctt 360  
gctgcatang angaggtaaa cgggcacagc aagggtacttt gcctgtaccg gcaggatgc 419

<210> 9373

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-B6

<400> 9373

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gtcctcgca catgagatgt gttctggttg gatccacctc ggtttagtaa ctttgccaac 120  
ccaaagtcag tgatcttagg ctcaaagttt tgggtccaaga gtatattctc gggtttcaca 180  
tcgcaatgga tgaccattc taggcactca tgggtgaagat aggccaaccc tttcgcaaca 240  
cctaatacaa tattgaaccg ttgcttcag tccagcaaga tgatgctttt atcaccgaac 300  
aaaatgctag caagtgagcc gttctcgaca tattcacaaa ccaacagcct gtgagatcct 360  
tccgaacaaa acccccatat tctcaccaga ttcatgtggt aaatcctagc aatcacactc 420  
agctcggct 429



<210> 9374  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB29-001-Q1-E1-B9  
  
 <400> 9374

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 atgccggtgg gctcacaaga gagtgggtatc agttactatc acgagtgatt ttgacaagg 120  
 gtgcccttct attcacgact gttggaaatg acttgacatt tcaaccaaac cctaactctg 180  
 tgtatcagac tgaacacctc tcatatttca aatttggttg acgagtgggt ggaaaagcgc 240  
 tctttgatgc ccaacttttg gatgtccatt tcaactagatc tttctacaag cacatacttg 300  
 gtgccaaggt tacttaccat gatattgaag ccattgatcc tgcttactac agaaacctta 360  
 agtggatgct tgagaatgac ataagtgatg tcctggactt cacatttagc atggatgcag 420  
 atgaagag 428

<210> 9375  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB29-001-Q1-E1-C10  
  
 <400> 9375

gtaccgatca cgaattcccg gctcgacaaa ctaatcaaatt ctatcaactg ttggtaccca 60  
 ggatgcctgc attttgcaaa tgtcagtgga tcctgaagcc agaaacaagc aagagctaac 120  
 agctcatgtt ttatcacctc aacatgtata ggagaatttg gcagcaacaa ctgatggaca 180  
 gattgatgag acaatacgtc ttaaaactat cagaacccgc agtccagtag aggctgcgcc 240  
 ggttaacagt gcaagtcaaa aggttaatga ggcaccgaaa ccaaagatg aaatgacgat 300  
 tggagtgggt caagagcaca ggaaggggtg gaagacagag tcttgtcaag gagtaaaaca 360  
 aggcatgggt gatgtagatg ttgtcacgga ggaatcatca ccagtgcgca cgctaaaatt 420  
 gggaaatgca tgcagcgca 439

<210> 9376

<211> 440  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB29-001-Q1-E1-C12  
  
 <400> 9376

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ttttacagtt tttcgtagtt tagatcgagt ctgttcttca tacctatagt ccacgaaaaa  180
gccaagaaaa attaggggtta gttcatccca tccgaaccaa tctgagcctt gcataatctt  240
ttctgtattt gcttggttga atttgcggtt gcatcgctgt gttcagttgc tggctcttagc  300
gtctagtctt ttagagtttc gagttctgtt cacaagttgt cacgccgtcg ccgcacgac  360
atcatcgccc ctgccatcta cgaccaccgc tccgaatccg tatccatata ccaccaccag  420
tccgtgtcca tataaccacca                                         440
  
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<210> 9377  
 <211> 476  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB29-001-Q1-E1-C2  
  
 <400> 9377

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gccattcttg ccgaggacaa gcacttgccc atgtacgatg agttgtccag caaggacaat  120
gttgaatata ttgctggagg agccacgcag aactctatca gggttgcccc atggatgctt  180
caaactcctg gtgcaacaag ttacatgggt tgcattggaa aggacaagta tggtgaggag  240
atgaagagcg ccgctaaagc tgcaggagtt actgctcatt actatgagga tgaggctgct  300
cctacaggca catgtgctgt ctgtgttggt ggtggcgaaa ggtcattgat tgcaaactta  360
tctgctgcga actgctacan atctgagcat ctaaagaggc canagaactg ggcactagtt  420
tgagaaagcg agatacatct acattgctgg ctttttcctt acggtgtccc ctgaat     476
  
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<210> 9378  
 <211> 475

<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-C3

<400> 9378

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gaagtgggga ggaacgagca accgcctgta ctatgcccac tactctcagc cttggagcgt 180  
acatggcttt ggtgacgcgg cagatgctgt gtgggatcct tccaccgacc ctgatcttgt 240  
gtacaagaga aactggtacg gccagcttca ggccttctgg gtgtatccaa gcatgttcta 300  
ctctgatggc cagtgatagt cgatgggcaa ctatggcttg ctgcactacc agcttctttt 360  
ggaaaaacta tctcttccaa cagagactta tgcagctgaa gaaaagaagt gattttcatg 420  
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<210> 9379  
<211> 452  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
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<400> 9379

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catgggccat caaactgagg atgtcatcgg gttttgtgtt gacttcattc ctggccttaa 180  
gaagataggt ttccctaaat cgcggtatga ggggtgactg gctggaaaag gcacgcttgg 240  
aagggactca ataatatgca gggacggata ttcttggctc caagcacgct acacagttct 300  
atagaactct accttgggtga ccccgatatgt cgatgaacac aagaacagtc tgcgctccaa 360  
acaccgggag tagtgcgacg actggattac atgtgaacac atcaggactt tcagcagttg 420  
gttggaaca cgtatcanag gtgacaacac tg 452

<210> 9380  
<211> 444  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB29-001-Q1-E1-C7

<400>       9380

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caggatttag ttgtaactat taatgtgaac ctggccctc aatcctgtat ggcgccact   180  
gtttttgcaa aatcagcatg tgatatgttt gttttcaagc ttactcgatc actgcaaaga   240  
tttctattta ttggaattag ggaacataca catgttttct ggctgaaaca cagcctcctc   300  
aaatgatcat agcactgtct ctacaggctt ccatctgtat tatggttatg ttagtactac   360  
caaaactacga ataaaacaga tgatctgctg gtgaaaaaca tggggccgct ctacaggatt   420  
caagcttacg tacgtttgca tgca   444

<210>       9381

<211>       437

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB29-001-Q1-E1-C9

<400>       9381

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tgttcacaga cagctgtagg aggatgagga tcatgaaggg gtcagatgca gtgggcctcg   180  
ctccgagggc ggccgagaag agcaagaacc agaaatggca aaaaggatga acccggtctg   240  
tttctgtga ttcgcatcgt cgtacgaggg cgatggactt catgtgtgat gagaaagga   300  
tttacttata tataagtacg tgtattctct ttattatttc cttgtatgtt ggctcggaac   360  
aagcatgtta ggttgtgtaa gttgatgtgt gtgtgtatct actactactg cactatttta   420  
ctttgattcg cgtgtgt   437

<210>       9382

<211>       447

<212>       DNA

<213>       Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-D1

<400> 9382

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gtacgcctgg gtgcttgaca agctgaaggc cgagcgtgag aggggtatca ccattgatat 180  
tgccctgtgg aagttcgaga ccaccaagta ctactgcacc gtcattgacg cccctgggtca 240  
ccgtgacttc atcaagaaca tgattactgg tacctcccag gctgattgtg ctgtgctcat 300  
cattgactct accactgggtg gttttgaggc tggatatctc aaggatggcc agaccctga 360  
gcacgccctc cttgctttca ctcttgaggt gaagcagatg atctgctgct gcaacaagat 420  
ggacgccacc actcccaagt actcaaa 447

<210> 9383

<211> 436

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-D10

<400> 9383

ggtaccagtc aggaattccc ggctcgacgg caagatttat gatgtgaccg cgtatttgga 60  
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atattgaagat gcggggccaca gcaaggatgc caaggagttg atgaaagatt acgtcattgg 180  
ggagttggac ttggacgaaa cacctgacat gcctgagatg gaggttttca ggaaagagca 240  
tgacaaggac ttcgccagca agctggcggc ttacgctgtg cagtactggg ccattccggt 300  
aacagcagtt gggatatcag ccgtgcttgc tatattgtat gctcgaagga agtgatgac 360  
ggttatacgt tgattgaagg accatttttg ggtaaccaag acatttacag ctgggttatgg 420  
atggagagat tatgta 436

<210> 9384

<211> 410

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-D11

<400> 9384

aattcccggc tgcactacct gatcagctcc aagtgggtgc cttgcctcga gttcagcaag 60  
gttgggttca tcttccgtga gcacaacgca tcccctgggt actacgatgg ccggtactgg 120  
acaatgtgga agctgcctat gttcggatgc accgacgcca cgcaggtgat caacgaggtg 180  
gacgaggtca agaaggagta ccctgacgcc tatgtccgca tcatcggatt cgacaacatg 240  
cgtcaggtgc agtgcgtcag cttcatcgcc ttcaagccac cgggctgcga ggagtccggc 300  
aaggcctaaa cagctcactc accacaggcc acatataaag tgccattgca gttttgtcaa 360  
ctctgacatt gctttgggtt ttccttctcc atttatcttt cgtatttgtt 410

<210> 9385

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-D3

<400> 9385

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gaactcatcc gtcacgatgt caccgaacca ctgctcgtgg aggttgacca aatctaccac 180  
cttgcttgcc ctgcctcacc aatcttctac aagcacaacc ctgtcaagac catcaagacg 240  
aatgtcattg gaaccttgaa catgcttgga cttgcaaaga gagttggagc tagaatattg 300  
ttgacttcga cctctgaagt ttatggtgat ccccttgagc atcctcagac ggaggcgtac 360  
tggggcaatg ttaacccaat tggagtcagg agctgctacg atgagggtaa gcgtgtagct 420  
gagacactga tgttcgacta ccacaggcag ca 452

<210> 9386

<211> 404

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-D4

<400> 9386

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gtgccagatg aacttcaagc gtctttcgct gaccgacatc aagattgaca tcaagcgtat 120  
ccctaagaag gcaactttga tcaaggccat ggaggaagca gatgtgaaaa ccaaattggga 180  
gaacagctca tggggtaaga agcttgttgt ccagaagaga agagcatcgc tgaatgactt 240  
tgacaggttc aaggatcatgt tggctaagat taagaggggt ggtgcatca ggcaagagct 300  
tgccaagctc aagaaggagg ttgctgctta gattatctta gtggatggca tgttgagttt 360  
tttgttccaa gttggatctg ctcatgttcc cagtgttctt aaag 404

<210> 9387

<211> 438

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-D9

<400> 9387

ggtaccagtc aggaattccc ggctcgacga agtgattgtg gctgacgaga agaattggga 60  
taacatggtg atcgcgtgcg agtcgccggt gctgggtggag ttctgggagc cgtggtgagg 120  
gccgtgccgg atgattgccc cggatgacga cgaactggca aaggactacg tggggaagat 180  
caagtgtctg aaggatgaaca cggacgactg cccaacatc gcatccacct acggcatccg 240  
gagcatcccc accgtgctca tgttcaagga cggcgagaag aaggagagcg tcatcggcgc 300  
cgtcccgaag acaaccctct gcaccataat cgacaagtac atcggcagct aattaatcat 360  
tcttaattag cgattaatcg aggacgcaca cacctttact gttctgttcg cgagacagca 420  
tatatgtatg tatatgat 438

<210> 9388

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-E10

<400> 9388

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gtgctctgcg tgctcgggtg tacgacgacg aggtgcgcaa gtgggtgacc tctaccggta 120  
tcgagaacat tggcaagaag ctggtgaact cgcgggacgg accagtgacc tttgagcagc 180

caaagatgac agtggagaag ctgctagagt acgggcacat gctcgtccag gagcaggaca 240  
atgtcaagcg tgtgcagctt gctgacacct acatgagcca ggcagctctg ggtgatgcta 300  
accaggatgc gatgaagact ggtaccttct acgggtagaa cattctccat acacacccac 360  
catctcttgc tgcataaggag gaggtaaagg ggcacagcaa ggtactttgc ctgtaccggc 420  
aggatgcacc gaccagactg cg 442

<210> 9389  
<211> 420  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB29-001-Q1-E1-E11  
<400> 9389

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gtttcagcac taagcttcac tgggttgcgac ttcgacatgt acgtgctaga gcatggcacg 120  
aacaagacgg tgggtcagtg cactgctaca tgccctgtca aagatatcac ggatacggtg 180  
gcttggcagt attgcaacgg tacaggatgt tgcttcacca acgtcgatgc cgagtttgct 240  
acaggcatcg agataaagtt tgtccgccac aagattggac agctgaagtt ccaagcgaac 300  
agcaaccgaa gctctatatg gcatacagtt gatgtaaccg ctgattccat tattatgtgg 360  
ggatatcatcg ttaatgaaca tggccccttg caaaacagca cagattatgc atgtctcagc 420

<210> 9390  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB29-001-Q1-E1-E12  
<400> 9390

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gggaggaggg acgccaccac cgcaagtgcg tccttgcca acagtgcact ccccggtccc 120  
aactccaacc ttaatgatct cctcgccgct ttctccaaga agggattaag cagcaccgac 180  
atggttgctc tctcaggggg gcacaccatc ggccgggccc aatgccagaa ttaccgaaac 240  
cggatctacg ccgacaccga catcgacggg accttcacgg cgtcgctgcg aggcgactgc 300



ccacaggggtg gtggcaacga cggcaacctc gcgcctctcg acgcgtcctc gcccgactac 360  
 ttcgacaaca gctactttctc cggcctcctc agccatcggg ggctgctcca ctccgaccag 420  
 gcgctgtacg acggcggtc c 441

<210> 9391  
 <211> 482  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-001-Q1-E1-E2  
 <400> 9391

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 agcaagggtg gcttcgtctt ccgtgagcac aacagctccc ccgggtacta cgacggtcga 120  
 tactggacaa tgtggaagct gcctatgttc gggtgccacg acgccacaca ggtgctcaac 180  
 gaggtggagg aggtcaagaa ggagtacct gacgcctatg tccgcgtcat cggcttcgac 240  
 aacctgcgcc aggtgcagtg cgtcagcttc atcgccctca ggccaccggg ttgcgaggag 300  
 tccggcaagg cctaaactat gaggttgaaac aatggcctat ctcatatgaa gatcttttgt 360  
 gaatttcact tttgtccacg acctctgttt gcacgactct gctttccgac cggagcatac 420  
 cttttgttct aaatgatttt gtgtatgtac gtaagaacct atgtttctca acatgcatac 480  
 at 482

<210> 9392  
 <211> 464  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-001-Q1-E1-E3  
 <400> 9392

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 aatgttggcc atgcaaccca gcccatattt cgggtgcacc tttcaaccat tgtaaattg 120  
 tgtatgtttt cctcgagcat acatcaatat atcattttga tctgacaaat gttatattcc 180  
 tgttcacata attgtggaaa tccatccttt ggaaatcttg atgaattgtc gctgagttca 240  
 tcagccacct cttgtcctc tccttgggtt aatgatgaac tcttgtaac agaaatcact 300

tcatagttca tttcccgaga atcttacagt gtcacccgt caaattgtgt cgcacctttt 360  
 cttttcaagc atcctgagtc tgaggatatcc taacaccgat cagatctgaa tctcggtcag 420  
 atatgatggt tggaacactt ttcaagagtc acaacattgg tctg 464

<210> 9393  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-001-Q1-E1-E4  
 <400> 9393

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 agcaagggttg ggttcattctt ccgtgagcac aacgcattccc ctgggtacta cgatggccgg 120  
 tactggacaa tgtggaagct gcctatgttc gggcgcactg acgccacaca ggtgatcaac 180  
 gaggtggaag aggtcaagaa ggagtaccct gacgcgtatg tccgcattcat cggattcgac 240  
 aacatgcgtc aggtgcagtg cgtcaacttc atcgccttca agccaccggg ctgcgaggag 300  
 tccggcaagg cctaaacagc tctctacca caggccacat ataaagtgcc attgcagttt 360  
 tgtcaactct gacattgctt tgggttttcc ttctccattt atcgttctta tttgttctta 420  
 aagatatgtg tatgtccatg ttcatgttcc aaca 454

<210> 9394  
 <211> 467  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB29-001-Q1-E1-E5  
 <400> 9394

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 gttcagcaag gttggcttcg tctttcgtga gcacaacagc tccccgggt actacgacgg 120  
 ccgatactgg acaatgtgga agctgcctat gttcgggtgc accgacgcca cgcagggtgct 180  
 caacgaggtg gaggaggtca agaaggagta ccctgacgcc tatgtccgcg tcatcggctt 240  
 cgacaacctg cgccaggtgc agtgcgtcag cttcatcgca ttcaggccac cgggttgcca 300  
 ggagtcctggc aaggcctaaa ctacgagttg aagcaatggc ctatgtatga ttgtcttttg 360

tgaacttcac tttgtccag gactctgctt tccgaccaga gcatatTTTT cgttcggat 420  
gatctgtgtn tgtacgaaca taggttgtgg agcatgcata tggtaat 467

<210> 9395  
<211> 441  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB29-001-Q1-E1-E6

<400> 9395

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ccttacgtaa agttgccaaa gtacgattaa cctctggatt tgaaatcact gcttatatac 120  
ctggtattgg ccataattta caagaacatt ctgtagtact agtaacagga ggaaggggta 180  
aggatttacc cgggtgtgata tatcgcatTA ttcgaggaac cctagatgct gtcgcagtaa 240  
acaatcgTca acaacggcgt tctactgcgt tgtagattct tatccaagac ttgtatcatt 300  
tgatgatgcc atgtgaatcg ctagaaacat gtgaagtgtA tggctaacc aataacgaaa 360  
gtttcgtaat gggactggag cangctacca tgagacacaa gatcctcttt ctaaagagat 420  
tcgattcgga actcttatat g 441

<210> 9396  
<211> 437  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-E9

<400> 9396

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ctgttattgt gagaattctt aattcaagag ttatagggag ggacttatgt caccacaaac 120  
agaaactaaa gcaggtgttg gatttaaagc tgggtgttaa gattataaat tgacttacta 180  
caccCagag tatgaaacta aggatactga tatcttggca gcattccgag taagtctca 240  
gcctgggggt cgcCccgaag aagcaggggc tgcagtagct gccgaatctt ctactggtag 300  
atggacaact gtttgactg atggacttac cagtcttgat cgttacaaag gacgatgcta 360

tcacatcgag cctgttgctg gggaagacag ccaatggatc tgttatgtag cttatccatt 420  
agacctatatt gaagagg 437

<210> 9397  
<211> 430  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB29-001-Q1-E1-F10  
  
<400> 9397

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caagttagt acctccaacg gtatccagaa cattggcaag aagctgggtga actccccgga 120  
cggacccctt acctttgggc aaccaaagat gacaattgag aagctgccag agtacaggca 180  
catgcttggt caagaacacg gcaatgtcaa acccttttca accttctgac accctacatg 240  
aaccaggcaa ctctgggtga tgccaaacag gatgcatga aaaacgggtc ctttcaaggt 300  
tagaacattc tccatacaca accaccatct cctgctgcat aagatgaggt aaaagggcac 360  
aacaaggtag tttgcctgta ccggcaagat gcaacgacca aaatgccaag aaattctatc 420  
caaacagcgg 430

<210> 9398  
<211> 367  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB29-001-Q1-E1-F2  
  
<400> 9398

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cttcaggtgc caccactgca agggcaccct caagctcgca aattacaact cgttcgaagg 120  
agtgtcttac tgcaggcctc actttgacca gctcttcaag aggaccgga gcctggacaa 180  
gagcttcgaa ggcactccaa aggttggtcaa gccagaaagg aatgttgga atgagaatgc 240  
tactaaagtc tccagcgcac ttgctggcac tagagagaaa tgttttggat gcagcatgac 300  
agtctatcca attgagaggg ttactgtgaa taacactatg taccacagga gctgcttcaa 360  
atgctgc 367

<210> 9399  
 <211> 371  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-F4

<400> 9399

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ctgcgtgctc ggggtgtacga cgacgaggtg cgcaagtggg tgacctctac cggtatcgag 120
aacattggaa agaaccttgt gaactcgagg gacggaccac tgacctttga gcagccaaag 180
atgacagtcg agaagcggct acagtacggg cacatgctcg tccagcagca ggacaatgtc 240
cagcgtgtgc agcctgctga cacctacatg agccaagcat ctctgggtga tgccaacat 300
gatgcgatga aacttggttc ctgctacggt tagaacattc tccatacaga cccagcatct 360
cgtgctgcat a 371
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<210> 9400  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-F5

<400> 9400

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tacaagaaca ttctgtagta ttagtaagag gaggaagggt taaggattta cccggtgtga 180
gatatcgcat tattcgagga accctagatg ctgtcgcagt aaagaatcgt caacaagggc 240
gttctaaata tgggggtcaa aagccaaaaa aataagtgat tttagccctt ataaaaagaa 300
aacggattct tgaacctctt tcacgctcat gtcacgtcga ggtactgcag aaaaaagaac 360
tgcaaaatcc gatcaatttt ttcgtaatca attagttaac atggtggggt aacgtattat 420
g 421
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<210> 9401  
 <211> 146  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB29-001-Q1-E1-F7

<400>       9401

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gtgtggacaa gctgataacc tcacagatga gacttgccgg gtccaaccgg agacttcatt  120
ccgtgcaccg gaactcgggt tggctg                                     146
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<210>       9402

<211>       436

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB29-001-Q1-E1-F9

<400>       9402

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agttcagcaa ggttgggttc atcttccgtg agcacaacgc atctcctggg tactacgatg  120
gccggtattg gacaatgtgg aagctgccta tgttcgggtg cactgacgcc acacaggtga  180
tcaacgaggt ggaggaggtc aagaaggagt accctgacgc gtatgtccgc atcatcggat  240
tcgacaacat gcgtcaggtg cagtgcgtca gcttcacgc cttcaagcca ccgggctgcg  300
atgagtccgg caaggcctaa acagctcact cacgacaggc catatataaa gtgccattgc  360
agttttgtca actctgacat tgctttgggt tttccttctc catttatctt tcttatttgc  420
tcctaagaat atgtgt                                     436
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<210>       9403

<211>       437

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB29-001-Q1-E1-G11

<400>       9403

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gtgctctgcg tgctcgggtg tacgacgacg aggtgcgcaa gtgggtgacc tctaccggta  120
tcgagaacat tggcaagaag ctggtgaact cgcgggacgg accagtgacc tttgagcagc  180
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caaagatgac agtggagaag ctgctagagt acgggcacat gctcgtccag gagcatgaca 240  
 atgtcaagcg tgtgcagctt gctgacacct acatgagcca ggcagctctg ggtgatgcta 300  
 accaggatgc gatgaagact ggtaccttct acggttagaa cattctccat acacaccgc 360  
 catctcttgc tgcataggac gaggtaaagg ggcacagcaa tgtactttgc ctgtaccggc 420  
 aggatgcacc gaccaga 437

<210> 9404  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-001-Q1-E1-G12  
 <400> 9404

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 aaggtgaatt ggtccacaaa ttcagctttc taggctcatg gcaatggtga ttagtcacgt 120  
 tccatgcgaa gatctatggt tgctgttaac gtgggaaact ttgatgctat tgaagttctt 180  
 tcttttttgt tggtagctta ccaagctggt cgcttggtgc tgttgaagcg ttaacgcccc 240  
 ttgctaaagc tatatggctg tgctagtctg acagacaaca tggagctagc ttctgtcatg 300  
 gggaaagtga aatgaaaaga agccaggtaa actacagtct ggagctcgct tctatcctgg 360  
 ggaagatgac cagttggtga tacttatttt ggaacggagg gagtaatgta gcaactggac 420  
 gatgtgccct ttattacata c 441

<210> 9405  
 <211> 465  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-001-Q1-E1-G3  
 <400> 9405

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 cgcaaggcaa aaaggtctat gcataggaaa aagagctctt tagaagtga gtttatacaa 180  
 gtggttggtc aatttttggg gaaatacttt ggcgcaaaga caggagcttt tatcttccgc 240

ctatttgcca cacgtacaag cacactctta tcaaagtgtg ttggggccatc tgaacatata 300  
acgctatgtg ggcacccaat ttccttcatg gcaatcacccg cctacgggca accacaggca 360  
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gaacaattcc cagattgtca taagctttta gatgattttg ctgac 465

<210> 9406  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB29-001-Q1-E1-G4  
<400> 9406

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ctccgtctgc gatcaccag caggagactc cagcttctcc ggctgctggc ccagaagatg 180  
atctgcctct gcctctcac cctccactga cccagcatga ggaggatgga acgccagaag 240  
atgatctgcc tetgcctcct cctcttccac tgccccagca ggaggctgga gcgccagggt 300  
cagcgccaga ggcaggatcc gtcgatgaca agtgggcagg acgtggcgat gacaagtggg 360  
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tgaactgggt gtacatagat g 441

<210> 9407  
<211> 443  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB29-001-Q1-E1-G6  
<400> 9407

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tcggtgctct gcgtgctcgg gtgtacgacg acgaggtgcg caagtgggtg acctctaccg 120  
gtatcgagaa cattggcaag aagcttgtga actcgcggga cggaccagtg acctttgagc 180  
agccaaagat gacagtgcag aagctgctag agtacgggca catgctcgtc caggagcagg 240  
acaatgtcaa gcgtgtgcag cttgctgaca cctacatgag ccaggcagct ctgggtgatg 300



ctaaccagga tgcgatgaag actgggtcct tctacgggta gaacattctc catacacacc 360  
 caccatctct tgctgcatac gaggaggtaa aggggcacag caaggtagtt tgcctgtgcc 420  
 ggcaggatgc accgaccaga ctg 443

<210> 9408  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-001-Q1-E1-H10  
 <400> 9408

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 ggaaaatggt gaatacattg ctggaggagc cacgcagaac tctatcaggg ttgcccaatg 180  
 gatgcttcaa actcctgggtg caacaagtta catgggttgc attggaaagg acaagtatgg 240  
 tgaggagatg aagagcgccg ctaaagctgc aggagttact gctcattact atgaggatga 300  
 ggctgctcct acaggcacat gtgctgtatg tgttggttggg ggcgaaaggc cattgattgc 360  
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<210> 9409  
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 <213> Triticum aestivum  
 <223> Clone ID: LIB29-001-Q1-E1-H12  
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 tcaactatcca atgtaaagcg gtgatacatt cctgcaggca aaacaatcat gccacctttc 180  
 ttaactgcta tacggatcca ctgttcgttt tgggtccctca catcaaagta tccactgccc 240  
 tcgagacaat agcgtatctc ttcatcagta tgcaagtgc cttcaaagaa gttcttcagc 300  
 ttggcccat agtttggtgaa cttctctgga catacgtcgc aaatgtccac ataagagtat 360  
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gttcagctta caacaccca

439

<210> 9410  
<211> 421  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB29-001-Q1-E1-H3  
  
<400> 9410

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tactggacaa tgtggaagct gcctatgttc gggtgaccg acgccacgca ggtgctcaac 180  
gacgtggagg aggtcaagaa ggagtaccct gacgcctatg tccgcgtcat cggcttcgac 240  
aacctgcgcc aggtgcagtg cgtcggcttc atcgattca tgccaccggg ttgcgaggag 300  
tctggcaatg cctaaactac gaggtaagc aatggcctat gtatgattgt cttttgtgaa 360  
cttcactttt gtccaggact ctgctttccg accagagcat atttttcggt cggtatgata 420  
t 421

<210> 9411  
<211> 472  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB29-001-Q1-E1-H4  
  
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gatactggac aatgtggaag ctgcctatgt tcgggtgcac cgacgctaca cagggtgctca 180  
acgaggtgga ggaggtcaag aaggagtacc ctgacgccta tgtccgcgtc atcggcttcg 240  
acaacctacg ccaggtgcag tgcgtcagct tcattgcctt caggccaccg gggtgcgagg 300  
agtctggcaa ggcctaaact acgagttgaa acaatggcct atgtatgaag gtcttttgtg 360  
aacttcactt ttgtccacga ctctgctgga cgaccagagc atatttttca ttctatatgg 420

tctgtgtatg tatgtacgaa catagattct cgagcatgca tatgtaaatt ct

472

<210> 9412

<211> 395

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-H8

<400> 9412

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gaaccaactg ctgctggtac tgcataatgct tcctatctgg aagagttgtc tgagaaggat 180  
ccccaagcat ttatctgcca cttctataat gtgtactttg ctcatactgc tggaggccga 240  
atgattggca aaaaggttgc cgagaagatt ctggacaaga aagagctgga gttctacaag 300  
tgggaaggta ccctgtccca gctgctgcag aatgtccgca tcacactaaa ccaagttgct 360  
tctagctggt ctcggaaga gaaggaccac tgctt 395

<210> 9413

<211> 438

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-H9

<400> 9413

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atggccggta ttggacaatg tggaagctgc ctatgttcgg gtgcactgac gccacacagg 180  
tgatcaacga ggtggaggag gtcaagaagg agtaccctga cgcgtatgtc cgcattcatc 240  
gattcgacia catgcgtcag gtgcagtgcg tcagcttcat cgccttcaag ccaccgggct 300  
gggaggagtc cggcaaggcc taaacagctc actcacgaca ggccatatat aaagtgccat 360  
tgcaagtttg tcaactctga cattgctttg ggttttcctt ctccatttat ctttcttatt 420  
tggtcctaag aatatgtg 438

<210> 9414

<211> 454  
 <212> DNA  
 <213> Triticum aestivum  
  
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 <400> 9414

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ttggacaatg tggaagctgc ctatgttcgg gtgcactgac gccacacagg tgatcaacga  180
ggtggaggag gtcaagaagg agtaccctga cgcgtatgtc cgcattcatg gattcgacaa  240
catgcgtcag gtacagtgcg tcagcttcat cgccttcaag ccaccgggct gcgaggagtc  300
cggcaaggcc taaacagctc actcacgaca ggccatatat aaagtgccat tgcagttttg  360
tcaactctga cattgctttg ggttttcctt ctccatttat ctttcttatt tgttcctaag  420
aatatctgta tgtccatggt catgtaccaa catg                                     454
  
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<210> 9415  
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 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB29-002-Q1-E1-A2  
  
 <400> 9415

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cattggcaag aggctggtga actcgcgga cggaccctgt acctttgagc agccaaagat  180
gacagtggag aagctgctag agtacgggca catgcttgct caggagcagg acaatgtcaa  240
gcgtgtgcag cttgctgaca cctacatgag ccaggcagct ctgggtgatg ctaaccagga  300
tgcgatgaag actggttcct tctacgggta gaacattctc catacacacc caccatctct  360
tgctgcatag gaggaggtaa aagggcacag caaggtactt tgctgtacc ggcaggatgc  420
accgaccaga ctgccaagaa cttcgaccca acggcgagga gtgacgacgg gagctgccc  478
  
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<210> 9416  
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<213>       Triticum aestivum

<223>       Clone ID: LIB29-002-Q1-E1-A7

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gtgcaggcag caatgctgga gcccgatgtc atcaggtaca gaaagctgga cagtggagta   180  
aagcttgaag atgtagtcca tggcgaaggg ccggaggctc gggaaggcga tttagtgtcaa   240  
ttcaactacg tgtgccgccg tgcaaattgg tatttctgtgc atagcacggt gaatcagttc   300  
agcggcgaga gtaagccggt gacacttcca ctgcagctgc aagagatgat tcggggcctc   360  
aaagacgtca tagtcggcat gaaagccgga ggcaagagga gggctctgat accccctg   418

<210>       9417

<211>       469

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB29-002-Q1-E1-A8

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tcatcatgca gttctactcc acaactcatt tctacctaga tggaaggatt gtctggatgt   180  
ctgaaggtag gaggtaccag tccacggttg ctgaatgggc gaagttgatc aatgccccaa   240  
aagagagtga agatgacttg gatgtctatg ccaaccggaa gaaggatcac aacacaatgg   300  
cacacatgta caaggagatc ccacatgctg ctcttgagac acataagttt ggatctgtac   360  
attaccttct gtcaggcttg ccaaccatca actggatcct caggcacact ctctttccca   420  
agtcaggtag tcacaagatg atcagaggcc atgcaattaa cttgcttca   469

<210>       9418

<211>       460

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB29-002-Q1-E1-A9

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agcttccggt gttggtagggt gtgagatcaa caatggagga tgctggaaag aaactaagaa 180  
tggaagaca atatctgcct gctcgcatga agaattctgaa ggttgcaa atgtccacaagg 240  
tttcaagggc gatggtgtaa aaagctgtga agatattgat gaatgcaaag cgaaatctgc 300  
ctgtcagtg aatggctgca gttgcgagaa tacatgggga agctatgaat gcagctgtgg 360  
tggttaacaac atgttatata tgagagagca agacacgtgc atcagcaaac aagctgcctc 420  
ctcagtcggc tggagcttca tgtgggttat tttcttcgga 460

<210> 9419

<211> 342

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB29-002-Q1-E1-B11

<400> 9419

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agccgcacac cccctctttt acaccaaagc tcgggaaact ctcccaaaaa ggggtgcgtt 180  
cgtcacaggt acctccaaac attacagaat tattacaagt gggatttgga gttgctgttg 240  
ttgttgtaat cctcaacctg ttgtgtgttg taattggtgt aatccacacc aagttttgcc 300  
tccaacaaac aaataaatca ctgaagggtt cctccttcct tg 342

<210> 9420

<211> 459

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB29-002-Q1-E1-B12

<400> 9420

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gcaaaaaggt ctatgcatag gaaaaagagc tctttagaag tgaagtttat acaagtgggt 180  
gttcaatttt tgggtgaaata ctttggcgca aagacaggag cttttatctt ccgcctatct 240  
gccacacgta caagcacact cttatcaaat gttgttgggc catctgaaca tataacgcta 300  
tgtgggcacc caatttcctt catggcaatc accgcctacg ggcaaccaca ggcaactgatc 360  
atgcacttcc tagattacgg tagcactatc cgggtaactc tggcagttga tgacaaacag 420  
ttcccagatt gtcataagct tttagatgat tttgctgac 459

<210> 9421  
<211> 439  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
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ttgacaggat caaggagcgc gttgaggaga aagaaggcat tcctcctgtg cagcaaaggc 180  
tgatttacgc tggtaagcag cttgcagatg acaagactgc caaggactac aacatcgaag 240  
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ggaacacttg cctcctgaga gaagtgacca ttggtggcat ggaacctgtg ttggtgttgc 360  
aaagagataa taacaaacta gctttgctta gtgggagggg ctgtcttcca tgttatctgc 420  
ctatatgatt tgacaaaac 439

<210> 9422  
<211> 481  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB29-002-Q1-E1-B8  
<400> 9422

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atctggccgg tcggctggat ttaagcctcc tcttgcttca tctagcatgt attggatctc 180

gggccacttt gcattgcatg tgaatgttat aaacaggtct ggatatccag cccaacggca 240  
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ttgcagtcca ctataaagtt cagttcgtaa cttcccttga ttattcctga tctagtttag 420  
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<210> 9423  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB29-002-Q1-E1-B9  
<400> 9423

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agaagggggtt tcattgggtg aagatctata caaacggaga cagccgttgc cttcactgga 180  
tgctatatat ttcatccaac caactaaaga aaacggtgtt atgttctctc ctgacatgtc 240  
aggaagaagc ccgttataca agaaggcgta tgtgtttttc agttctccca tacagaaaga 300  
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gatgaatttg gagtacttcc ctattgattc ccagggtttc ataactgacc catgaaaggg 420  
caa 423

<210> 9424  
<211> 437  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB29-002-Q1-E1-C11  
<400> 9424

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agcggctgat gccaggagtg gctcctacgg caatgccacc atctctcatg gatcgtagac 180  
cgaggagggt catctgtagt tctattaggc gacttggtt aagggttgg atgaactatg 240  
atcggcgaat tttgtcagat tggctggagt tttgcaccct tgtgggtag tgttaggata 300  
gaccggtgaa tttggtctgt tcttcagacc gacccttgcg cggcagcttt gaattgctga 360  
ggccagtttg aattatgcta aaccttcacg gatgatgtta tgggcgttca ggcttacttt 420  
canggttggt ttctgat 437

<210> 9425  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB29-002-Q1-E1-C12

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cggatgcaac acagagatgg tgcaagtggc acatcctgaa gaaggccaaa gagagcctgg 180  
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tgctgactat agaggagttt gaggacaggt gggcagcgtt gcttgagaag tattcactga 300  
ctaagaacac gcacctgacg caaatttacg agacaaggca gaaatgggcc aagccatact 360  
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tgttgagaca gtatgtgcca acttc 445

<210> 9426  
<211> 362  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB29-002-Q1-E1-C3

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agcttcgaag gcactccaaa ggttgtcaag ccagaaagga atgttgggaa tgagaatgct 240  
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 <212> DNA  
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 <223> unsure at all n locations  
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 acacaatcga cagaatcaag gaacgtgttg aggagaaaga gggattcca cctgttcaac 180  
 agaggctcat ctatgctggg aagcaactcg ctgatgacaa aactgctaag gactacaaca 240  
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 ctcgacgtgg accgtaaagg ccatttctac cagaacttgt ttgcagacct agatctgtga 360  
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 tacttggatg gaattg 436

<210> 9428  
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 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-002-Q1-E1-D1  
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 aagaggtctt tcaagtacgc ctgggtgctt gacaagctga aggccgagcg tgagaggggt 180  
 atcaccattg atattgcct gtggaagttc gagaccacca agtactactg caccgtcatt 240  
 gacgcccctg gtcaccgtga cttcatcaag aacatgatta ctggtacctc ccaggctgat 300

tgtgctgtgc tcatcattga ctctaccact ggtggttttg agactggtat ctccaaggat 360  
ggccagacgc gtgagcacgc cctccttgct ttcactcttg gagtgaagca gatgatcta 419

<210> 9429  
<211> 354  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB29-002-Q1-E1-D10  
  
<400> 9429

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ttgtgaactc gcgggacgga ccagtgacct ttgagcagcc aaagatgaca gtcgagaagc 180  
tgctagagta cgggcacatg ctctgccagg agcaggacaa tgtcaagcgt gtgcagcttg 240  
ctgacaccta catgagccag gcagctctgg gtgatgctaa ccaggatgcg atgaagactg 300  
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<210> 9430  
<211> 474  
<212> DNA  
<213> Triticum aestivum  
  
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<400> 9430

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aacgtgtagt tggccatctc aactcaggt tgcagcagct ggatgtgcgc tgtgaaacta 180  
agacaaagga caatgtgttc gtcactgttg ttgcatcgat tcagtaccga cctctggctg 240  
gcaaagaaag tgacgcatac tacaaactga ccaacacaag atcccagatt caagcctatg 300  
tctttgatgt gatcagggca agtgttccaa agctcaacct ggatgatgct ttcgtgcaga 360  
agaacgatat agcaaaggct gtggaggatg aacttgaaaa agctatgtcg gcatatggct 420  
ttgagatcgt gcagaccctc attgtcgaca tcgaaccaga tgcgcatgtc aagc 474

<210> 9431  
 <211> 342  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-D12

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 ttcactaggg catggtagtt ccatgccaaa tagaaatcga gcacgtcagg catgtaatag 180  
 catatggtga gatttgcgat acatatgggg atctagaact tacactggac ttttcagcat 240  
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 gaatatatgt ccatttgcac tctcgtgagt atgatgacac ca 342

<210> 9432  
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 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-D3

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 attggccata atttacaaga acattctgta gtattagtaa gaggaggaag ggttaaggat 180  
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 gtaaggggac tggagcaggc taccatgaga c 391

<210> 9433  
 <211> 316  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-D4

<400> 9433

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 tgttgcatat aagaatgtga ttggagcccg ccgtgcctca tggcgcatca tctcctccat 120  
 tgagcagaag gaggagagcc gtggcaacga ggaccgggtc acgctcatca aggagtaccg 180  
 tggcaagatc gagactgagc ttagcaagat ctgtgatggc atcctcaagc tgctcgaaac 240  
 ccaccttgct ccgtcttcca ctgcccctga gtccaaagtc ttctatctta agatgaatgg 300  
 tgactactac agatat 316

<210> 9434  
 <211> 234  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-002-Q1-E1-D5  
 <400> 9434

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 aactcgcgct taaaagatat cttcatcttc cagcgcgctt tggattcctg gagcgttgca 120  
 agatcacgct caagtccgtg gagaggaaca ggtcgtggga ggtggaagggt gggatagggg 180  
 atccaccggt gagcaagccc tgtgagtgcc atacaccagg gaggagggcg gact 234

<210> 9435  
 <211> 480  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-002-Q1-E1-D6  
 <400> 9435

taccggtcag gaattcccgg gtcgcctact tgatccgctc caagtgggtg cctgcctcg 60  
 agttcagcaa ggttggettgc gttttccgtg agcacaacag ctcccccggt tactacgatg 120  
 gtcgatactg gacaatgtgg aagctgccta tggtcgggtg caccgacgcc acacaggtgc 180  
 tcaacgaggt ggaggagggtc aagaaggagt accctgacgc ctatgtccgc gtcacgggct 240  
 tcgacaacct gcgccagggt cagtgcgtca gttcatcgc cttcaggcca ccgggttgcg 300  
 aggagtctgg caaggcctaa actacgagtt gaaacattgg cctatgtatg aaggctcttt 360  
 gtgaacttaa cttttgtcca ccactctgct ggacgaccag agcatatctt tcattctata 420

tggtctgtgt gtgtatgtac gaacataggt tctcgagcat gcatatgtaa attctagaac 480

<210> 9436

<211> 353

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-D7

<400> 9436

gggtcgacga cagcaacgtc ttcgagtggc aggtcaccat catcggcccg cccgagaccc 60

tatatgatgg aggctatttc aatgcaataa tgagcttccc acaaaattat ccgaacagcc 120

ctccaacagt cagattcact tctgaaatgt ggcatacctaa tgtttatccg gatgggcggg 180

tatgcatttc tattcgatcat ccacctgggtg atgatcccaa cggatacgag ctgcgcgagt 240

agcgttggac accagtccat acggttgaga gtatagtatt aagcatcatt tcgatgcttt 300

ctagtccaaa tgatgaatca ccggcaaata ttgaagcagc taacgactgg aga 353

<210> 9437

<211> 359

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E1

<400> 9437

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gcgtgctcgg gtgtacgacg acgaggtgcg caagtgggtg acctctaccg gtatcgagaa 120

cattggcaag aagcttgatga actcgcgga cggaccactg acctttgggc aaccaagat 180

gacagtcgag aagctgctag agtacgggca catgctcgtc caggagcagg acaatgtcaa 240

gcgtgtgcag cttgctgaca cctacatgag ccaggcagct ctgggtgatg ctaaccagga 300

tgcgatgaag actggttccg tctaggggta gaacattctc catacacacc caacatctc 359

<210> 9438

<211> 481

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB29-002-Q1-E1-E11

<400> 9438

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cggtatcgag aacattggca agaagctgggt gaactcgagg gacggaccag tgacctttga 180  
gcagccaaag atgacagtgg agaagctgct agagtacggg cacatgctcg tccaggagca 240  
ggacaatgtc aagcgtgtgc agcttgetga cacctacatg agccaggcag ctctgggtga 300  
tgctaaccag gatgcgatga agactgggtac tttctacggg tagaacattc tccatacaca 360  
cccaccatct cttgctgcat aggaggagggt aaagggggcac agcaaggtag tttgcctgta 420  
ccggcaggat gcaccgacca gactgccaag aacttcgnac caacggcgaa gactgacgac 480  
g 481

<210> 9439

<211> 471

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E12

<400> 9439

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tgctgacgtg tccaaatatt tgtatgcagg ccttgataga tcttgcgcag gacagactgc 120  
tcactgttcg tgaaagtgtc cgattgcaag gttttcctga tagctacagg tttcgtggaa 180  
cagtcaaaga caggatatgc cagattggaa atgctgtggc cgtaccggtt ggccgtgcac 240  
ttgggtatgc cttggccatg gccaacctga acaagactgg aaatgatccc ctcatggagc 300  
taccacccaa gtttgcattc tctcatatag aaggcactcc ttagtcagac tggcaaaacc 360  
taacggttga cttttccacc tgggtttaag tctcgtcatc tccgttcatt ctccgctaga 420  
aaagctgggt acctcatggt cgtgaatatc attaagactc gtgaatatcg t 471

<210> 9440

<211> 465

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E2

<400> 9440

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tagttcagca aggttgggtt tatcttccgt gagcacaacg catcccctgg gtactacgat 120  
ggccggtgct ggacaatgtg gaagctgcct atgttcgggt gcaccgacgc cagcgagggtg 180  
atcaacgagg tggaggaggt caagaaggag taccctgacg cgtatgtccg catcatcgga 240  
ttcgacaaca tgcgccaggt gcagtgcgtc agcttcatcg ctttcaagcc accgggctgc 300  
gaggagtccg gcaaggccta aacagctcac tcaccacggg ccacatataa agtgccattg 360  
cggttttgtc aactctgaca ttgctttggg ttttccattt ccatttatct ttcttggttg 420  
gtcccaagat aagaataatt gtaggtccat gttcccgaca tgact 465

<210> 9441

<211> 423

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E3

<400> 9441

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ttttgtgtgc gtctcgattg gctcaccat tgggaagatt cccaccgttg gagttgtgta 120  
caaccccatc atgaatgagc ttttcacagc tgttcgtgga aaagggtgctt ttctcaatgg 180  
ttctccaatt aaaacatcgc ctcaaaatga gttggtgaag gctcttatgg tgacagaggt 240  
atggaccaa agagacaagt ccactttgga tgatacaacc aacagaatta ataagttact 300  
attcaagatt agatctatac gtatgtgtgg ctctttggct ctaaacaatgt gtggagttgc 360  
ctgtggtatg ctagatttgt gttatgagat cggttttggt ggcccctggg atgtggctgc 420  
tgg 423

<210> 9442

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E4



<400> 9442

gggtccggatt taccgggtcg actacctgat ccgctcaaag tgggtgcctt gcctcgagtt 60  
cagcaagggtt ggggtcatct tccgtgagca caacgcatct cctgggtact acgatggccg 120  
gtattggaca atgtggaagc tgcctatgtt cgggtgcact gacgccacac aggtgatcaa 180  
cgaggtggag gaggtcaaga aggagtaccc tgacgcgtat gtccgcatca tcggattcga 240  
caacatgcgt caggtgcagt gcgtcaactt catcgccctc aagccaccgg gctgcgagga 300  
gtccggcaag gcctaaacag ctcaactcag acaggccata tataaagtgc cattgcagtt 360  
ttgtcaactc tgacattgct ttgggggtttt ccttctccat ttatctttca tagttgttcc 420  
taag 424

<210> 9443

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E6

<400> 9443

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gcgccccgtg cccgtctctc caccatcgtc gccagcctcg gcacccccgc gccctccaac 120  
tcctctctct tccgccccaa gtcctcagg aacaccccag tccaggccgc gcccgtcgca 180  
cccgattga tggacgcgc cgtggagcgc ctcaagaccg gggtcgagaa gttcaagacc 240  
gaggtctacg acaagaagcc cgatttcttc gagccctca aggcgggcca ggcgcccaag 300  
tacatgggtg tcgctgcgc cgactcccg gtgtgccct cggtcaccct gggcctgtag 360  
cccggcgagg ccttcaccat ccgcaacatc gccaatatgg tcacgtccta ctgcaagaac 420  
aagtacgc 428

<210> 9444

<211> 472

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-F11

<400> 9444

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 cttcttcttt ggcggtctgc accttccgtg cgggctgtgg aggacggatg acgcggtgct 120  
 gttagggcgc tgacaggcag cggttctacg tccccctccc gagcagctct ttcattgggac 180  
 aggcaattga aggtatggac tacaacagta cagactgtta tatactctgga aggcgaaatt 240  
 ttggggcggt acctgggttat tgaatgacag acagttatat aagagagaag attcctaggt 300  
 ttgccatgac agacaagatg gtggcaaggc cttgctcgtt ttagaggaca tgggatacat 360  
 acaggaagca gctgaaattg atgttggcaa gtctgggtatt tagaagaaat ctcatgaagt 420  
 cattcaacaa acgtttgcga acaagcaatt tgtcttctg gacatggctt ca 472

<210> 9445  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-002-Q1-E1-F12  
 <400> 9445

gggctcgacat cgacatcgcc aagaagcata atgctgggac aaacaaagct gctcatagca 60  
 ccacatcgct caatacaaag aggcttgatg atgatacaga gaatcttgct catgagcgtg 120  
 tgccgtcaga cctgaagaag agcattatgc aggctagaac ggacaagaag ctcacacagg 180  
 cacagcttgc acagctgatc aatgagaagc cacaagtcac ccaggagtac gagtcaggca 240  
 aggctatccc aaaccaacgg atcatcgga agctggaaag ggctcttggc acaaagctgc 300  
 gaggcatgaa gtgaagctgc gtgcatctga caggagtcga gtctttcaag agaggagctt 360  
 ggctgggcaa gtttaccgct aaataaagct tgtctactaa atcatgcgac ttatgagaac 420  
 cctggag 427

<210> 9446  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB29-002-Q1-E1-F2  
 <400> 9446

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tagggctcaa gacatgtctc atttggttga tctaaggaaa gcagggtcga ccgatgttgc 120  
tctagaaaat gccgagacta gcttgcaact aggctcgatg cttatgaaag ggctgggtgt 180  
catgtctgat gatgtatctt tcttgagtaa gcttgtgagg gactcgatgg agttacaagc 240  
tcaggaggca ctcaacaacg tcgaggatcg tgaaactact accatggagt cacttcaggt 300  
tagagtatcg gacttggttg agtccaatgg gaacggttcc ggaatgattc cccgggagca 360  
atcgctaggt ctaagcagtc gcccgggagg tacngggtgg ataaaaacga c 411

<210> 9447  
<211> 425  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB29-002-Q1-E1-F3  
<400> 9447

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aatcgaaaca agcctatcag cgaaccaaga gcgcgccgcc atggagaaga agaggctgaa 120  
gtggaagggtg gctgggcctc ccccaaaaga aaatgtgggtc cgtggagggc ccgtggaccc 180  
ctccaagctc gtcgtcgagc tggcacccat ggagatccgc acattcgtca tcaacttcga 240  
ccaccgactc gccgcacatc cgatctaggc gccgacattg taactttttt gtaattttga 300  
accagaatgt tgtattgttg aagctgaact cgaatgagtt gtgaatagca ataagaaata 360  
atgtggccaa cggagggtcg agcgtcatca acttcttaaa taagcttccg ctagtgagat 420  
caana 425

<210> 9448  
<211> 459  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB29-002-Q1-E1-F4  
<400> 9448

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aaagcagagg cgccgtacat accgtgtcga cggacgcac cgccttaca tgtccaaccc 120

ctgccacatt gagctgatct tgtcagagaa ggaagagcct gtgaagaagg aggctgataa 180  
 cgtcgtcgca ccaaggaaag ctatctaagc taccggaatg gatgcattcg cccaacagtc 240  
 ttagttgtag ttcttctcaa gtacctttgt tggcagtgtt tgttgccctcc ttgatgtttt 300  
 tgttaccaac attgagtaag gatttgtaa gggtgatgtt atccttgtga ttgcgagtgg 360  
 tctttatatg ctaaaacagt ttcagatatt tgagcattag cacaccagaa cttatttctc 420  
 agagatgctg gtcctttcgg gctcttcact ttgaggat 459

<210> 9449  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-002-Q1-E1-F5  
 <400> 9449

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 ctgatcgaac cacgtacgag gtccagacga cggccgaccg atcgaccgac cgacgaacca 120  
 tccgagccga gctacgtacc taacgtactg gtagtagtac atgtgcgatt tatatatgag 180  
 tgtcgtgtgt atgtgtgctt cccttgagct gttgctttca gctatagcaa tagcatatgc 240  
 ccctagaggc ctagaacaga gtagaactgc agaaagaata gccagcccgt cctgccgttc 300  
 gggttcagctc tccagcggca cgacgggtgg gtgggtgtgtg ttgcatgtat gtatgtatct 360  
 gatgtgatcc cctaaaaaag agtatctgat gtgagtctac g 401

<210> 9450  
 <211> 464  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB29-002-Q1-E1-F8  
 <400> 9450

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 ggtgtttcct atggcgtgtg ctccaaatta tattgccatt ggcttttcca actatggttt 180  
 agatacgggg acaagggtac tctcgccgag ctacaagaac ttcccacgga aatcctccta 240

caagttttctc aagggtccgtg ctctgcatgg aaatgatggc cgtagaacgc tgattgacat 300  
aatctggatc atgccggagc tgtcaatgaa ctatttcata aacgggtcca tgagagctct 360  
tttcggcggc atcgactgc tgggtggctt ttatgttgcg cagacattat ccctgtcatt 420  
cgggtgctttg ggcgttaacg atgttatcgc atgagttgtg tgtg 464

<210> 9451  
<211> 464  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-F9

<400> 9451

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gatgatgtgt ttgctttcga cggccgtttc ctttgcctgg tggactactt ctgcggcgtc 180  
gtgctatgcg acttctccaa aaatgtggac tcccagggtc tccacttcgt gccttttctt 240  
ggaggaatca aatacccttt tgacgcacgg ttcccagggt acttcccagg gaggttccga 300  
agtgcgtcca tcagccaagg catgatccgc tatatccaca ttgacaatga ctttcatgag 360  
actaccact ccgactggca agtcatgatt cctcctaaga gaagccaacg gcggcagcag 420  
cagcttcccc acaaaatcac catttggacg ttgaactcca agtt 464

<210> 9452  
<211> 472  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB29-002-Q1-E1-G10

<400> 9452

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cgtcctctct ctccccctcc ccctccccct acatattccg tggtggcgca ggacatgtga 120  
taaagggacc tgatgaaggg atcttgctga tgaaagttgg aggattacgt cggttgtaca 180  
taccgggtca attagcattc cctaaggggc ttacatcagc tcccgggagg ccaagagtgg 240

ctccgagcag ccccgctcgta tttagcgtca acctattggt cgtacctggt cttgacgatg 300  
atgggtgaaa gcatcatctt gcatctttac aggacgcaac tgaagagagt gattttcctt 360  
ttgtgaatta ccatgtgagt agagtgacaa ttgttttctg cagcataata taaaaaacta 420  
tgatgatttg tattaagtgc atagcaacct ttggttgtga atgggataat gt 472

<210> 9453  
<211> 455  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB29-002-Q1-E1-G2  
<400> 9453

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aaggaggtga catggcgcag aggatcaaga aggcaagagg cgtcctcttc tcggaagaga 120  
gggtgtgccg gtggttcaca cagttgctct tggcccttga ctacctgcac tgcaaccgcg 180  
tgctccaccg tgacctcaag tgttccaata tcttgtaac caaggataac aacatacgac 240  
ttgctgattt cgggtagca aaattactca tggaggatct tgcgtcgtcg gtagtaggaa 300  
ccccaaacta catgtgcccc gaaatactcg cggacatacc ttatggttac aaatctgata 360  
tatggtcgct tggttgctgt atgttcgaga ttttagcaca gcgctctgca ttcaaagcta 420  
cagacatggc aacattagtc aaaaaataa acaga 455

<210> 9454  
<211> 394  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB29-002-Q1-E1-G3  
<400> 9454

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ttacgtaaag ttgccagagt acgattaacc tctggatttg aaatcactgc ttatatacct 120  
gggtattggcc ataatttaca ataacattct gtagtattag taagaggagg aagggttaag 180  
gatttaccgc gtgtgagata tcgcattatt cgaggaaccc tagatgctgt cgcagtaaag 240  
aatcgtcaac aagggcgttc tagtgcgttg tagattctta tccaagactt gtatcatttg 300

atgatgccat gtgaatcgct agaaacatgt gaagtgtatg gctaaccctaa taacgaaagt 360  
ttcgttaaggg gactggagca agctaccatg agac 394

<210> 9455  
<211> 289  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-G5

<400> 9455

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ctatcaagtg ggatcagatt tccaggttgc tcggtgagat ttacagttt ttcatagttt 120  
agatcgagtc tgttcttcat acctacagtc gacaaagaag ccacaatcta cattaagggt 180  
agttcatcat atccgaacca atcagagcct ttgcataatc gtttttagggg ttgactttgc 240  
tgaatttgcc ggtgcacact cgggtatactt gctgggtctta acgtccagt 289

<210> 9456  
<211> 485  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-G6

<400> 9456

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gatggccggg actggacaat gtggaagctg cctatgttcg ggtgcaccga cgccacacag 180  
gtgatcaacg aggtggaaga ggtcaagaag gaggaccctg acgcgtacgt ccgcatcatc 240  
ggattcgaca acatgcgcca ggtgcagtgc gtcagcttca tcgccttcaa gccaccgggc 300  
tgcgaggagt ccggcaaggc ctaaacagct cactcaccac gggccacata taaagtgcc 360  
ttgcgggttt gtcaactctg acattgcttt gggttttctt tctccattta tctttcttgc 420  
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ctcgt 485

<210> 9457

<211> 290  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB29-002-Q1-E1-G8  
  
 <400> 9457  
  
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 cgaagattat gccaggacac agcaagtaat ccgccccaaa aaactaaatg ggttacaaaa 180  
 gcaattccaa aaccctgcaa caacaactcc catgcttgac gtttgcaa at acccattttc 240  
 cctcccactt acaaggacaa aggagctaag agctctgact ggggtggcgg 290

<210> 9458  
 <211> 474  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB29-002-Q1-E1-H10  
  
 <400> 9458  
  
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 ctacgacggc cgatactgga caatgtggaa gctgcctatg ttcgggtgca ctgacgccac 180  
 acaggtgctg aacgaggtgg aggaggtcaa gaaggagtac cctgacgcct atgtccgtgt 240  
 catcggtctt gacaacctgc gccaggtgca gtgcgtcagc ttcacgcct ttaggccacc 300  
 ggggttgcgag gagtccggca aggccctaac tacgagttga aacaatggcc tatctcgtat 360  
 gaaggtcttt tgtgaacttc acttttgtcc aaaactctgc tgtacgactc tgctttctga 420  
 ccggagcata ctttttgttc tatatgattt tgtgtatgta tgtacgaaca tagg 474

<210> 9459  
 <211> 476  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB29-002-Q1-E1-H12  
  
 <400> 9459



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cggagctcca accaaggaat aatagttcaa acagcaacgt gacatcagca ggttcctcca 180  
gcttaacctc ttcagagaat ggacctgaat attcaagccc ggtagcacia tgatgagtgg 240  
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ctgggtattgg ccataattta caagaacatt ctgtagtatt agtaagagga ggaaggggta 180  
aggatttacc cgggtgtgaga tatcgcatia ttcgaggaa cctagatgct gtcgcagtaa 240  
agaatcgtca acaagggcgt tctaaatatg ggggtcaaaaa gccaaaaaaa taagtgattt 300  
tagcccttat aaaaagaaaa cggattcttg aacctctttc acgctcatgt cagctcgagg 360  
tactgcagaa aaaagaactg caaaatccga tccaattttt cgtaatcgat tagttaacat 420  
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<210> 9461  
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<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB29-002-Q1-E1-H7  
<400> 9461

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 acaagaacat tctgtagtat tagtaagagg aggaagggtt aaggatttac ccggtgtgag 180  
 atatcgcat attcgacgaa ccttagatgc tgcgcagta aagaatcgtc aacaagggcg 240  
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 acggattctt gaacctcttt cacactcatg tcacgtctag gtactgcaga aaaaagaact 360  
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<210> 9462  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-H9

<400> 9462

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 agacttgcta ttactacatt ctcaaattat ttctgttctc attaaagggg gatgctaaag 180  
 cttggtacaa tactcttgct actgggtgtg tgcgtagtcc ccaggatatg atttattact 240  
 tctctgaaaa atatttccct gtcataaga aacaagctgc cttacatgaa atatttaagt 300  
 ttgtgcaa ataaagaagag agtctccac aagcttggcg gaggctttgc caattactta 360  
 atgctttgcc tgattatcct cttaagaaaa atgaaatgct tgatatcttc tataatggag 420  
 taaccgatgc ttctagggat tt 442

<210> 9463  
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 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-A1

<400> 9463

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attcatgag gctggcctct acgacggatg gctcccgcac ctgtttgttg ggaacttgct 180  
caaggggcag actgttggag tgatcggagc tggccgcac ggctcagctt atgcaaggat 240  
gatgattgag gggttcaaga tgaacttgat ctacttcgac ctgtaccagt ccacacggct 300  
cgagaaattc gtcaccgcgt a 321

<210> 9464  
<211> 460  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
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<400> 9464

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ccggagactt cattctgtgc accggaactc tggcttggct gtggctggat tagcagcaga 180  
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actctactgg tggctcaggc cttttggctg tggagttatt cttggaggct atgataggga 360  
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<210> 9465  
<211> 417  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB30-001-Q1-E1-A11  
<400> 9465

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gtacatcgcc ctctctgtct gctttctggg gtccttcact tgcttcatcc actccgcgaa 180  
gtactatgtc caaaccagct tcctggtgac cacgctggac tctgacgtct cggcgagcta 240  
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cttctcaacg acgctgctga tgtggatatt cgggccata ccgatgtctg tctgctcagt 360  
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<210> 9466  
<211> 447  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB30-001-Q1-E1-A2  
  
<400> 9466

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ttccctgatt cagtgccttg agcttgctcg tctcaccta cagccagccc cgcagcttga 180  
ttcatttgtg cgcccatagc gtgaccttcg acggcggtg gtttgtctct tgatctctc 240  
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aggtgcagct gctcaaggga ggagggcaga tcatcaatct gcacgatgtt gttgctgtca 360  
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tagtatcagg atggtggaga tgttttc 447

<210> 9467  
<211> 420  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB30-001-Q1-E1-A3  
  
<400> 9467

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atcacccgtt tggtatctga atcccaggtt tctccttctg atcggcgagt tggggcttgc 180  
ggcgatcttg gagaaaagac gggaggcaag ctgcatctgc gcacggaagc ttccgatctg 240  
cccggctggc gtctcagatc tggtgctgat ctgatgcttc acggcggatc tgggtgttcc 300  
cggcggtctc aagtcggcgc agcggctggc ggcgagtttt ccggcaagca cgtgggatcc 360  
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<210> 9468  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB30-001-Q1-E1-A4  
  
 <400> 9468

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gcagccatgg tgaacgttcc gaagacgggg aatacctact gcacgaacaa cgactgcagg  180
aaacacaccc tccacaaggt taccagtagc aacaaaggca aggacatgcc tttctgctca  240
cgggaagcgt cgttacgacc gcaagcagtc tgcataatgt ggccacacaa accctgtttt  300
caacaagaag gccaaaggcaa caaagaacat tgtgtgaag ctgcactgcc agacctgcaa  360
gcattttctca cagcgtgcc aacccaagt caagcacttt taaatccgtg gccacaagaa  420
cggccgtgga acatccctct tca                                           443
  
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<210> 9469  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB30-001-Q1-E1-A5  
  
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aactcgcggg acggacccgt gacctttgag cagccaaaga tgacagtgga gaagctgcta  180
tagtacgggc acatgcttgt ccaggagcag gacaatgtca agcgtgtgca gcttgctgac  240
acctacatga gccaggcagc tctgggtgat gctaaccagg atgcgatgaa gactgggttcc  300
ttctacggtt agaacattct ccatacacac ccaccatctc ttgctgcata ggaggaggta  360
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act                                           423
  
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<210> 9470  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB30-001-Q1-E1-A7

<400> 9470

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 cttcaacctt tctagaccat attgatccgc tgctgcaaat agatgctgga ccacggcatt 180  
 tctttcagat ctgtcaagat catccattgt aggcaaggaa tcagtgtaaa cgaaatggag 240  
 cagagcctcg aaaaccaccg gttccatgag atcaacgggt atgtgccgca tcttgttctc 300  
 cttcatgggt tcaacttagct gcgctttgaa aactggcgac ctggcagaga gcactgccct 360  
 gtgggcagga aacattttct ctctaacttt gaaggtcaca tctgctctgg acttatcctt 420  
 cagcatcttg ccaaaatg 438

<210> 9471  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-A8

<400> 9471

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 agctcattca gatcgacgtg agctcagata cagtgtgccc ttgggtgctt gttgggaaaa 180  
 ggaatcttga gaaagctatg gagcaaacca tggacaagtt cgatttcgag gttcgttggc 240  
 atccattttt tttgaaccct gatgcaccta aggaagggtg caagaaatct gatttctaca 300  
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 gaggacttgg ctttgaatat gacatgtcag gactcaccgg gaaa 404

<210> 9472  
 <211> 319  
 <212> DNA



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 acaacatgcg ccaggtgcat tgcttcagct tcatcgctt caagccaccg ggctgccacg 300  
 attccggcaa ggctaaaca gtcactcac caggggccac atataaagtg ccattgccgt 360  
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<210> 9475  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB30-001-Q1-E1-B11

<400> 9475

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 tgcttgacaa gctcaaggcc gagcgtgaga gaggtatcac catcgatatt gctctctgga 180  
 agttcgagac caccaagtac tactgcaccg tcattgatgc ccctggtcac cgtgacttca 240  
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 ccactgggtg ttttgaggct ggtatctcca aggatggcca gacacgtgag cagccctcc 360  
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 ctcccaagta ctcaaagggg cgttatgaag aaattgt 457

<210> 9476  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-B12

<400> 9476

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 atggacatac acatattctt aggaacaagt aagagagaca aatggagaag gaaaacccaa 180



agcaatgtca gagttgacaa aactgcaatg gcactttata tgtggcccgt ggtgagtga 240  
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actgcacctg gcgcattgtg tcgaatccga tgatgccgac gtacgcgtca ggttactcct 360  
tcttgacctc ctccagctcg ttgatcacct gtgtggcgtc ggtggcaccg aacataggca 420  
gcttccacat ttgtca 436

<210> 9477  
<211> 278  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-B2

<400> 9477

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cttaaaaaat aagtgtaaat aaagtagatt gcgatgctct tagagaaaag ccgatgtgta 180  
attatgctga attttatgtt ttgcaagaac ataatttttt aatgtaatcg acgcgtaata 240  
ttgtgtcgaa ttttatgttc tgcaagaaca acagatcc 278

<210> 9478  
<211> 432  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-B4

<400> 9478

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ggaagctgcc tatgttcggg tgcaccgacg ccacgcaggt gatcaacgag gtggaggagg 180  
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tgcagtgcgt cagcttcacg gccttcaagc caccgggctg cgaggagtcc ggcaaggcct 300  
aaacagctca ctcaccacgg gccacatata aagtgcatt gcggttttgt caactctgac 360  
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432

<210> 9479  
<211> 436  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB30-001-Q1-E1-B5

<400> 9479

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atctgctttg aggtctgtga tgttggtctg cactctgatg ctattcacag ggggtgggtggc 180  
caggtcatcc caacagccag gagggtcatt tatgcttctc agctcactgc taagccaagg 240  
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tatggtgttc tgaatcagaa gagagggcac gtgtttgagg agatgcagag gcctgggtacc 360  
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ctcaaggctg cgacat 436

<210> 9480  
<211> 440  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-B7

<400> 9480

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cgcccatggc gagcctgatg gacaaggcca aggggttcgt cgccgacaag atcgcgacaca 180  
tgcccaagcc ggaggcgctg ctggacaagg tgaccttcaa ggcatgacc cgcgaggcca 240  
tcaccgtgca cagccacgtc aacgtcacca accctactc ccaccgcac cccatctgcg 300  
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440

<210> 9481

<211> 399

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-B8

<400> 9481

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tggggcagaa ccccaactgag gcagagcttc aggatatgat caatgaagtg gatgctgatg 240

gcaatggaac gattgacttt cctgagttcc tcaacctgat ggcgcgtaag atgaaggaca 300

ctgattccga agaggagctt aaggaggctt tccgcgtggt tgacaaggac cagaatgggt 360

tcactctggc agctgaactc agccatgtca tgactaacc 399

<210> 9482

<211> 395

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB30-001-Q1-E1-B9

<400> 9482

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tacgacgacg aggtgcgcaa gtgggtgacc tctaccggtg tcgagaacat tggcaagagg 120

ctggtgaact cgcgggacgg acccgtgacc tttgagcagc caaagatgac agtggagaag 180

ctgctagagt acgggcacat gcttgtccag gagcaggaca atgtcaagcg tgtgcagctt 240

gctgacacct acatgagcca ggcagctctg ggtgatgcta accaggatgc gatgaagact 300

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gaggtaaagg ggcacagcaa ggtactttgc ctgta 395

<210> 9483

<211> 417

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB30-001-Q1-E1-C11  
  
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 cactgctgct cgggccagcc atgaggggtcc tcgcgttcct cctcctacta gggatctctg 180  
 ccgccgccac tgcattccct ccgccgctcg agaccctcgg catccctccg caagatgagg 240  
 cgtactacag gggcggcgtg atcaagtga gggacggatc gggcaagttc accagggatc 300  
 agtcaacga cgacttctgc gactgtcccg acggcaccga cgagccaggg acatccgcgt 360  
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<210> 9484  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB30-001-Q1-E1-C12  
  
 <400> 9484

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 acattggcaa gaggctggtg aactcgcggg acggacccgt gacctttgag cagccaaaga 180  
 tgacagtgga gaagctgcta gactacgggc acatgcttgt ccaggagcag gacaatgtca 240  
 agcgtgtgca gcttgtgac acctacatga gccaggcagc tctgggtgat gctaaccagg 300  
 atgcgatgaa gactgggtcc ttctacggtt agaacattct ccatacacac ccaccatctc 360  
 ttgctgcata ggangatgta aaggggcaca gcaagggtact ttgcctgtaa cggcaggatg 420  
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<210> 9485  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-C2

<400> 9485

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tggatttaaa gctggtgtta aagattataa attgacttac tgcaccccag agtatgaaac 180  
taaggatact gatatcttgg cagcattccg agtaagtcct cagcctgggg ttccgcccga 240  
agaagcaggg gctgcagtag ctgccgaatc ttctactggg acatggacaa ctgtttggac 300  
tgatggactt accagtcttg atcgttacaa aggacgatgc tatcacatcg agcctgttgc 360  
tggggaagac agccaatgga tctgttatgt agcttatcca ttagacctat ttgaagaggg 420  
ttccgttact aacatgttt 439

<210> 9486

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-C9

<400> 9486

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agcttgtgaa ctcgcgggac ggaccagtga cctttgagca gccaaagatg acagtcgaga 180  
agctgctaga gtacgggcac atgctcgtcc aggagcagga caatgtcagg cgtgtgcagc 240  
ttgctgacac ctacatgagc caggcagctc tgggtgatgc taaccaggat gcgatgaaga 300  
ctggttcctt ctacgggtag aacattctcc atacacacc accatctctt gctgcatagg 360  
aggaggtaaa ggggcacagc aaggtacttt gcctgtgccg gcaggatgca ccgaccagac 420  
tgccaagaac ttcgacccaa cggcgagg 448

<210> 9487

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-D1

<400> 9487

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gtggaagctg cctatgttcg ggtgcaccga cgccacacaa gtgatcaacg aggtggagga 180  
ggtcaagaag gagtaccctg acgcgtatgt ccgcatcatc ggattcgaca acatgcgcca 240  
ggtgcagtgc gtcagettca tcgccttcaa gccaccggac tgcgaggagt ccggcaaggc 300  
ctaaacagct cactcacgac aggccatata taaagtgccca ttgcagtttt gtcaactctg 360  
acattgcttt gggttttctt tctccattta tctttcttat ttgttcctaa gaatatgtgt 420  
atgtccatgt tcatg 435

<210> 9488

<211> 455

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-D10

<400> 9488

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ttactgagac gacggcggag ctagcggcat cgctgtcggg ggcggtgcc cggaggatcg 120  
ttgaggccga ccaattgatg agggctggcc tctacgacgg atgggtcccg cacctgtttg 180  
ttgggaactt gctcaagggg cagactgttg gagtgatcgg agctggccgc atcggctcag 240  
cttatgcaag gatgatgatt gaggggttca agatgaactt gatctacttc gacctgtacc 300  
agtcacacg gctcgagaaa ttcgtcaccg cgtatggcca gttcctgaaa gccaatggtg 360  
agcagcccgt gacatggaag agggcttcca gcatggagga ggtcctcagg gaggctgatg 420  
tgataagcct gcaccaagtg ctggacaaga caacg 455

<210> 9489

<211> 335

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-D11

<400> 9489

gggtcgactc ggtgcttgta gatacccaag ggctttcagc aagagaaggt ggtgaccggc 60  
aagatctcgg agatgcgac gtcgtcgtag ttgtagtggt ggtgcttgca ctgctagagt 120  
tgtagaggaa cgcagcgtgc agcccaatcc tattatcaag ttgggctctg gtatgcaacg 180  
gatgaaacgt ctgtgtaaag aactgtagtc tcaaggctctg tgtggtcagc taggtccgag 240  
agtggtttgt gtgtcctcca gtcttcccat gggtaaattt ttttctcgcc ctgggtgcaa 300  
attagacttt ggtgctgctg ataaaacccg ttgtg 335

<210> 9490  
<211> 435  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-D12

<400> 9490

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tggatgaactc gcgggacgga ccagtgcct ttgagcagcc aaagatgaca gtggagaagc 180  
tgctagagta cgggcacatg otcgtccagg agcaggacaa tgtcaagcgt gtgcagcttg 240  
ctgacaccta catgagccag gcagctctgg gtgatgctaa ccaggatgcg atgaagactg 300  
gtaccttcta cggttagaac attctccata cacaccacc atctcttgct gcataggagg 360  
acgtaaaagg gcacagcaag gtactttgcc tgtaccggca ggatgcaccg accagactgc 420  
caagaacttc gacca 435

<210> 9491  
<211> 445  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB30-001-Q1-E1-D2

<400> 9491

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tctgcgtgct cgggtgtacg acgacgaggt gcgcaagtgg gtgacctcta ccggtatcga 120  
gaacattggc aagaagcttg tgaactcgcg ggacggacca gtgacctttg agcagccaaa 180

gatgacagtc gagaagctgc tagagtacgg gcacatgctc gtccggggagc aggacaatgt 240  
 caagcgtgtg cagcttgctg acacctacat gagccaggca gctctgggtg atgctaacca 300  
 ggatgcgatg aagactgggt ccttctacgg ttagaacatt ctccatacac acccaccatc 360  
 tcttgctgca tangangagg taaaggggca cagcaaggta ctttgctgt gccggcagga 420  
 tgcaccgacc agactgccaa gaact 445

<210> 9492  
 <211> 373  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-001-Q1-E1-D3  
 <400> 9492

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 agtctggtga ccgctacgcc ggcggaacga ccgggcttct tatctgggcc gtcaccctcg 120  
 ccggcctcct cggcgggcgc gtctctctcg tctacaacac cagcgtctc gccggctaag 180  
 agagcatcta cgtgtaacac agggccgggt ctctgcttgc atgcacgtct ctgtaatctg 240  
 cgtagctacc tcctgtgaat gtatgcaatc aacgatgcaa agtaattgat ccgaacagat 300  
 ggtttatgtg tatgtacgta acgctgttac gatatacttc ctactttgga aactgtaaaa 360  
 ggggtggattc tcg 373

<210> 9493  
 <211> 356  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-001-Q1-E1-D4  
 <400> 9493

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 cggccttgcc aacttccgct gccatccgta tcgagggccc tcggggacgc cagcaggggt 120  
 gtggggtgtc tgctgatgtt tgctgcttct tctccttccc tctactagctt ctccgctcgt 180  
 gttgcttgc gccgccgact gataaactaa tccgtgaact gttgttgaag ggccgaatga 240  
 gcaagactgc tgcaagatga aggtaacact ggcgaaacag caaatcatgg tccaggaaag 300



catatatgta cttattggcc atatccaggc atcttttggg cagtcgggtg tgttct 356

<210> 9494

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-D9

<400> 9494

gccctagaa acacttctct tcacccttca gttttgttaa ctctgettca tctttcgcaa 60

ttgccaattc ggccttttca acttcctgat tccgaataac gacaccactt ttatatgtag 120

ctacgtgctt ctttaacttc tccctcgccg ccttgccagc tccccagcat gtattcttgc 180

aagtgccatt gctaccgtat tcgtcactcc cgtcacagca atcgcatata ccatcattca 240

ctcgcgacga gaagatgggtg attggagaat gtccgggtatt cttgcagtag aatttcgcct 300

ccgggcacgc ggatgtccct ggctcgtcag tgccgtcggg acagtcgcag aagtcgtcgt 360

tgagctgac ctggtgaact tgccgatccg tcccggcact tgatcacccg ccctg 416

<210> 9495

<211> 410

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-E1

<400> 9495

ctgatgaggg acttcaagcg gctgatgcag gaccctcctg cgggcataag cggggcgccg 60

caggacaaca acataatgct gtggaatgct gtgatttttg gccctgacga tagcccgtag 120

gatggaggca cgtttaagct gactctccag tttaatgaag aatatacctaa taagccacca 180

acagttcggg ttattttctcg gatgtttcac cctaacattt atgctgatgg aagcatatgc 240

ttagatattc tacagaatca gtggagccca atatatgatg tagctgctat acttacatct 300

atccagtcgc tgctgtgtga tcccaaccca aattcgctg ctaactcaga agctgcccgc 360

atgttcagtg agaacaagcg agagtacaac cgcaaagtgc gggagattgt 410

<210> 9496

<211> 457

<212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB30-001-Q1-E1-E11

<400> 9496

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 ccgtcgtcca cgagctcaac aggctggaga atctcctcag agaaaaggaa cgagaactag 120  
 gacacgcata cagtgaaata aaaggctctga aggtgacaga agctctgaag gacaaggcca 180  
 ttgctgagct gagcaaggag ctgaagaaac aggacgagag gctgagcatc ctggagaagc 240  
 agcttgagca gaagaatctg gatgtgaaaa ggatatgcaa tgagcgcaag gaagcgttgt 300  
 ctgcacagtt cgctgccgag gcacgcgtca ggaggatcca ctcggctcag agagacgagg 360  
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 atgagattgc ggtgctccag gatgacaaaa agggctc 457

<210> 9497  
 <211> 271  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-001-Q1-E1-E12

<400> 9497

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 gaaggcctca ggtggtggtg gtgatgacgg cgacgaggag gaagactaag cgcccagcct 120  
 caccgcata actttcgttg cagaaatggt gagattgcct tgtggaactc ggaaatgatt 180  
 caaactttcc ttcttagaaa cttaatggtg tagagctttc gttggttcag aatcttttgg 240  
 ctgtcgggtc taàaattaaa cttatgtgtg t 271

<210> 9498  
 <211> 385  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-001-Q1-E1-E2  
 <400> 9498

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tcaagcagccc tgacattctg ctcgtcaata cagattctcg gggattgatt gacaaagcct 120  
ggactcttg cataccgctg tttgtatcat attctgcgga tgattatgac caggaattta 180  
tggattacaa ggtataacct tctaagtact tggggctacc ataatacttt aatcaatata 240  
ttgaacagga taaagaatat acttcccagg gcgaagccat gctggtgaaa gcaagcagca 300  
ttgctcgcac aatgctatac atggatctgg ggctagtaga ttagatgggt ataaacggaa 360  
caatgtgcac ggagatgttg tgcta 385

<210> 9499  
<211> 450  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB30-001-Q1-E1-E3

<400> 9499

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atagtacaaa agatacttct cttttcccta taaccttttg ggcgacttcg gtgcaaagct 120  
tgccacagag aagtatcatt gtgctgacga tctgggctga atgccgcaga atgcaacagc 180  
tgcattcatc actacagaat ggttgattta aggggcagtt gaagcaactt ttgggtaatc 240  
attatcgggc tgcgcttccc attctgtcca agatccgtcg taaactggaa cgtcatgctt 300  
accgattcta tagaggccca gggcaagtat gcaggcagtt acaccagatc cacatgtgac 360  
gacaatcggg tgatcgagca aaatgccttc ttgctcaaac ttttttgata gctcatctgc 420  
agggaggagc gtntgtgcac catcaaacat 450

<210> 9500  
<211> 156  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB30-001-Q1-E1-E4

<400> 9500

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tgaaccagct ctggaagaag ttcagggggg aagaaaaacc accggcgcat ttaggtgcga 120  
gcagagacta caatgtagac atggttccag aggttt 156

<210> 9501  
<211> 301  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-E5

<400> 9501

aattcgcggg ccgacggcta cagcccaatc tacacgccgg aggaatggtc tgaatctggt 60  
gaccgctacg ccggcggaac gaccgggctt cctatctggg ccgtcaccct cgccggcctc 120  
ctcggcgggcg gcgtcctcct cgtctacaac accagcgctc tcgccggcta agagagcatc 180  
tacgtgtaac acagggccgg gtctctgctt gcatgcacgt ctctgtaatc tacgtagcta 240  
cctcctgtga atgtatgtca tcaacgatgc aaagtaattg attcgaacag atggtttatg 300  
t 301

<210> 9502  
<211> 425  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-F1

<400> 9502

cccgggcggc catcgagcca gatgagcatg tcaagcaggc gatgaatgag atcaatgcag 60  
ctgcaaggat gacggtggct gcaaacgaga aggcggaggc tgagaagatt gtccagatca 120  
agcgtgccga gggatgaagca gaggccaagt acctgtctgg cctcggtatc gcccgccagc 180  
gccaggccat tgtggatggc ctgagggaca gcgtcctggg cttctcagtc aatgtgcctg 240  
gcaccactgc aaaggatgtg atggacatgg tgctgatcac ccagtacttc gatactatga 300  
aagagattgg cgcgtcctcc aagtcctcgg cgggtgtcat ccccatggc cctggtgogg 360  
tgcgcgacat cgccacgcag atccgtgacg gtcttcttca aggccagtct gcctctgaca 420  
actag 425

<210> 9503

<211> 392  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB30-001-Q1-E1-F12

<400> 9503

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tgtcaccaca aacagaaact aaagcagggtg ttggatttaa agctgggtgtt aaagattata 120
aattgactta ctacacccca gagtatgaaa ctaaggatac tgatatcttg gcagcattcc 180
gagtaagtcc tcagcctggg gttccgcccg aagaagcagg ggctgcagta gctgccgaat 240
cttctactgg tacatggaca actgtttgga ctgatggact taccagtctt gatcgttaca 300
aaggacgatg ctatcacatc gagcctgttg ctggggaaga cagccaatgg atctgttatg 360
tancctatcc attagaccta tttgaagagg gt 392
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<210> 9504  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-F2

<400> 9504

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ggcatagaac tcggtacata gttcagtaat agcaacagat aggtctacat actagtacia 120
acggtaatac gatggatcaa gtgttcctgt cgtgatttgc agccgaaata gaatgtccat 180
aaccgacaac agcatcgacc gaagattcta gatcagaagg acaatgtcat gtctaagggtg 240
ctgtccgtgc catatgttct caatgcaact cgttgtcacc tttggaaaac tacattgaaa 300
gtcgggtcaa ccaacgtaac tgcaatctag acacatcgtg cttaactoga gatgtggaat 360
atcacctttt aggtctcatg actgctgctg tcgttcagca ggatgatgac acacgtagac 420
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<210> 9505  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-F5

<400> 9505

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gaaagtcaac tgtgctccag cgatcaagtg cattggggcca gaatttgtgc gtccccagag 180  
ccaccgttgc tatecttcat cctgcatggg gactgcattt ccgaggttgc atgagatgga 240  
tttattagaa ttggtggaat tggaggaatg ggaatgggat gaggaagtgc aagctatgtc 300  
agtcatgggt gagcttactt tcacaagatg taatttgaag tgtatccctc ccggtcttgc 360  
ctcacatgca aaggctttga taaagttaac cttgtggagc atgtggcgtc tccattcgct 420  
agagaacttt gc 432

<210> 9506

<211> 380

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-F8

<400> 9506

catcgagtag accctgttat tgtgagaatt cttaattcaa gagttatagg gagggactta 60  
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aattgactta ctacacccca gagtatgaaa ctaaggatac tgatatcttg gcagcattcc 180  
gagtaagtcc tcagcctggg gttccgcccg aagaagcagg ggctgcagta gctgccgaat 240  
cttctactgg tacatggaca actgtttgga ctgatggact taccagtctt gatcgttaca 300  
aaggacgatg ctatcacatc gagcctgttg ctggggaaga cagccaatgg atctgttatg 360  
tagcctatcc attagaccta 380

<210> 9507

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-F9

<400> 9507

tacggtcgta tttccgggtc gccccgacga atcagtagag aatttgaagg cgcttcttga 60

ggtggagact caagtgccgt tgcagcagca gctgcttcat ttcaatggca aggagatgaa 120  
 caatgctgag aagctcagcg ccatcgaggt cgatgatggg gatcttgtga tgatgggtgc 180  
 ctccaataat aggacatctc aggatattat gaggttaaata cctgatggat cggcagtaaa 240  
 tcctcaagct ttccaacaac atattcgtgg cgattcaciaa cttatggcgc aactccttca 300  
 gaatgacctt tcattagctc aagccatcct tggagatgac accactgagt tgcaaaacat 360  
 cttgcgggtca caccaccaac aaagactaca actgaaacgc agacaggaag aagagcttgc 420  
 cttattgtat gccgattcat ttgatgt 447

<210> 9508  
 <211> 237  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-001-Q1-E1-G10  
 <400> 9508

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 cgggagggac tgggtgacctt tgagcagcca aacatcacac tcgggaagct gccagactac 180  
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<210> 9509  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB30-001-Q1-E1-G11  
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 aacattggca agaagcttgt gaactcgcgg gagggaccag tgacctttga gcagccaaag 180  
 atgacagtcg agaagctgct agagtacggg cacatgctcg tccaggagca ggacaatgtc 240  
 aagcgtgtgc agcttgctga cacctacatg agccaggcag ctctgggtga tgctaaccag 300

gatgcatga agactgggtc cttctacggt tagaacattc tccatacaca ctcagcatct 360  
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<210> 9510  
 <211> 289  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G12

<400> 9510

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 tgtgggggtg cgctgacgcc acacaggtgc ggaaggaggt ggatgaggtc acgagggagt 180  
 accccgacgc ctatgtccgt gtcctcggct tcgatcgctt ggcgccggtg cagtgcgtcc 240  
 gcttcatgcc cttcacgccc ctgcgtttgc gacgagtccg ggcgtggcc 289

<210> 9511  
 <211> 376  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G2

<400> 9511

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 aggatagaag ctggaattgg agccggagaa gctgatccag tgctttttta catggtctca 180  
 tggagcacia gaaacaatgt tcattgtaat atgcgacgca caattatatc cgatgttata 240  
 attggtgaag ctgaagacag atgtatccta tgtaaaaaac aacgcagcaa cgaacattag 300  
 agaaaaaacg cagaagcgaa cagaaaacaa aaaaaaccga agagattcgg tagcaaccaa 360  
 aaaaaaaaaag cggccg 376

<210> 9512  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB30-001-Q1-E1-G3

<400> 9512

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attgaatttg attttgctca catcgagtga acttgcgagg ctgcggtctc ttcttaaaaa 180  
gtcattgggtg gatacttggtg ggaaggactt atttctatct ttatacgctt cttggtgcc 240  
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tgttattcag tctctgggag aagaagacat aaatgtgaag tttctggtgc agctagataa 360  
attgatccgt ctattagaga ctccagtatt tgcttacttg cgtttacagc ttcttgagcc 420  
tgaaaaacac acttggcttc tgaaaac 447

<210> 9513

<211> 408

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G4

<400> 9513

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actctgaaga ttatctttga tcatcgggca tgggatacac ggaccatgga gtctctatgc 120  
cgatcttgca aatttgctgt aaggacatgt gggagggtcca tgggaatcac cattggtgca 180  
atgctgctag aaatccaaac actatatcag caacacaatc agtcttgctt cctttactta 240  
tccagtgaag ttattaagat atttggatct gatccatctt gtgcgagtta tcttacatgt 300  
ctgatacaga cactctttta tcatacaata caactgctca gaactattca agattttaca 360  
gctagaccgg acatagctga tgattgcttt ctgcttgctt caagatgt 408

<210> 9514

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G7

<400> 9514

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ggccggtact ggacaatgtg gaagctgcct atgttcgggt gcaccgacgc cacacaggtg 180  
atcaacgagg tggaagaggt caagaaggag taccctgacg cgtacgtccg catcatcgga 240  
ttcgacaaca tgcgccaggt gcagtgcgtc agcttcatcg ccttcaagcc accgggctgc 300  
gaggagtccg gcaaggccta aacagctcac tcaccacggg ccacatataa agtgccattg 360  
cggttttgtc aactctgaca ttgctttggg ttttccttct ccatttatct ttcttgtttg 420  
ttcctaagaa tatgtgtatg tccatgttca tg 452

<210> 9515  
<211> 466  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G9

<400> 9515

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gcatgatggt ggtccatcaa ctggggggaa actgggtgtg ctcccgattg ttggcagcat 120  
gggagtcggg aagaccaccc ttgcgcagca tgcggcgat gatgagaggg tgcgcaacca 180  
cttcccaata attttgtatt ccaatttctc atacaccaga gcaatggctc gggatgaggc 240  
ggtgtttgtt cttggatcca aacacacagt tggagatgct caaaaattca tcgagtcact 300  
acatgtactt aaggagaaat gcctcaccaa gaggttcttg atggtatttg aagatgttga 360  
catgggcaaa aaacagatgc tagaagagtt actgccaatc ttgagacatg gcagattcgg 420  
gagcaggatc ataatcacca cagacaacgg ggatgtcgcc agcttg 466

<210> 9516  
<211> 148  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-H11

<400> 9516

tccgcccacg cctctgtacc gccgcatatg acgacggaac gcggagaaga gatcgctaaa 60

cgaatacttt gatcatcgtg tgacaacaat aacggctgct tcaactgatgc gggcgctctgt 120  
gacattgaga ccagctgggt tcacgggt 148

<210> 9517  
<211> 368  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB30-001-Q1-E1-H12  
  
<400> 9517

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accaggatt cctgagctcc tcatacctac aaattattag gtcgtgcttt tcggcttcct 120  
tctgtctcgg tagctttccc catttattgc aaccttctca aatctcaaga ttccaactgg 180  
tcaaggaagt gaagaacaag gacagaagga catggatgcc ttaagttcaa tgctcgacaa 240  
ggcgaaagac aaggtgaaaa gcaaccctga tgtgatggag aaagtcagtt cggtcctcga 300  
caaggttaag aaccaccag aagtcatgga gaaagttgct gaagttttac atctgggaaa 360  
acgtgaat 368

<210> 9518  
<211> 427  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB30-001-Q1-E1-H2  
  
<400> 9518

tctcagaaca aaccatcgac tttttcgggtg ctctgcgtgc tcgggtgtac gacgacgagg 60  
tgcgcaagtg ggtgacctct accggtatcg agaacattgg caagaagctg gtgaactcgc 120  
gggacggacc agtgaccttt gagcagccaa agatgacagt ggagaagctg ctagagtacg 180  
ggcacatgct cgtccaggag catgacaatg tcaagcgtgt gcagcttgct gacacctaca 240  
tgagccaggc agctctgggt gatgctaacc aggatgcgat gaagactggg accttctacg 300  
gttagaacat tctccatata caccacccat ctcttgctgc ataggaggag gtaaaggggc 360  
acagcaagggt actttgcctg taccggcagg atgcaccgac cagactgcc aagaacttcga 420  
cccaacg 427

<210> 9519  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-H3

<400> 9519

tccccgggccc actacctgat ccaactcaaag tgggtgccct gcctcgagtt cagcaaggtt 60  
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 atgtggaagc tgcccatgtt tgggtgcacc gacgccacac aggtgctcaa cgaggtggag 180  
 gaggtcaaga aggagtaccc tgacgcctat gtccgtgtca tcggcttcga caacctgcgc 240  
 caggtgcagt gcgtcagctt catcgccctt aggccaccgg gttgcgagga gtccggcaag 300  
 gcctaaacta cgagttgaaa caatggccta tctcgatga aggccttttg tgaacttcac 360  
 ttttgtccac aactctgctg cagcactctg ctttcggacc ggagcatacc ttttgttcta 420  
 tatgatttgt gtatgtat 438

<210> 9520  
 <211> 367  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-H4

<400> 9520

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 aattgactta ctacacccca gagtatgaaa ctaaggatac tgatatcttg gcagcattcc 180  
 gagtaagtcc tcagcctggg gttccgcccc aggaagcaag ggctgcagta gctgccgaat 240  
 cttctactgg tacatggaca actgtttgga ctgatggact taccagtctt gatcgttaca 300  
 aaggacgatg ctatcacatc gagcctgttt ctggggaaga cagccaatgg atctgtaatg 360  
 tagctta 367

<210> 9521  
 <211> 438  
 <212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB30-002-Q1-E1-A3

<400>      9521

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gtttatcttc cgtgagcaca acgcatcccc tgggtactac gatggccggt actggacaat  120
gtggaagctg cctatgttcg ggtgcaccga cgccacgcag gtaatcaacg aggtggagga  180
ggtcaagaag gagtaccctg acgcgtatgt ccgcatcatc ggattcgaca acatgcgcca  240
ggtgcagtgc gtcagcttca tcgccttcaa gccaccgggc tgcgaggagt ccggcaaggc  300
ctaaacagct cactcaccac gggccacata taaagtgcc ttgcggtttt gtcaactctg  360
acattgcttt ggggttttct tttccattta tctttcttgt ttgttcctaa gataagaata  420
tgtgtatgtc catgttac                                     438
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<210>      9522

<211>      424

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB30-002-Q1-E1-A4

<400>      9522

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ggttcacatt ccgtgagcac aacgcatccc ctgggtgcta tgatggccgg tactggacaa  120
tgtggaagct gcctatgttc ggtgcaccg acgccacaca agtgatcaac gaggtggagg  180
aggtcaagaa ggagtaccct gacgcgtatg tccgcatcat cggattcgac aacatgcgcc  240
aggtgcagtg cgtcagcttc atcgcttca agccaccggg ctgcgaggag tccggcaagg  300
cctaaacagc tactcacga caggccatat ataaagtgcc attgcagttt tgtcaactct  360
gacattgctt tgggttttcc ctctccattt aactttctta ttggttcta agaatatgtg  420
tatg                                             424
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<210>      9523

<211>      207

<212>      DNA

<213>      *Triticum aestivum*

<223> Clone ID: LIB30-002-Q1-E1-A5

<400> 9523

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gccccagagg agtgttcaaa gcctcttctt ctgagaataa atttttgtat ggaactatgt 120  
cagctaaaaa ccttttattg gatgtatcct gatgggttggg tgggcttagc ggctcacatt 180  
ttggtgggtat tatgtacttg cttgaac 207

<210> 9524

<211> 374

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-A7

<400> 9524

ccgaccacca aaatgattgt gaagcctgac atgctgttcg ggaagcgtgg gaagagtggc 60  
cttgtggtac tcaacctgga ttagcccaa gtcaaggagt ttgtgaagga gcggttggga 120  
gtcagagtcg agatgggtgg ctgcaaagct ccaattacca ccttcatagt tgagccgttt 180  
gtccccacg atcaagagta ctaccttca gttgtgtccg aaaggttggg tagcaccatt 240  
agcttctcgg aatgtggagg cattgaaatc gaggagaact gggacaaggt taagacagtc 300  
tttcttccga ctgagaagcc aatgacacct gatgcttgtg ctcccttgat tgcaaccctt 360  
ccactggacg cacg 374

<210> 9525

<211> 247

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-A8

<400> 9525

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gggtactggag aatgtgtgac ctgcgtaagt tcgggtgcac cgacgcaaaa caacttatca 120  
acaacgtgga tgaggtcaag aaggagtacc ccgatgcgta tgtccacatc atccgcttcc 180  
acaacatgcg ccaggtgcag tgcgtcagct tcagcacctt catcccaccg gggttgcgacg 240

agtcg

247

<210> 9526

<211> 426

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-A9

<400> 9526

cgggccgact cgcagggcat ctgcatgaac ataaacgggt gggagaatat gatcttcatt 60  
ggcatcaacg ctgctatcag tgttcgagtc tccaatgagc tgggcgagc cgtccaatg 120  
gcagccatgc acgctgtcat cgtcatcatt gccgagtcgc tgctcatcgg gctgctatgc 180  
atggctcctcg tcttgatctt cagagataac ttgccatca tctacagcac cgatttggag 240  
ctccagcatg cgtctccaa gatcgccga ctcttggct tgaccatggg gctcaacagc 300  
gtgcagcctg tggtttcagg ggttgctgtt ggacgacgat ggcaaggcct tgttgcatc 360  
atcaacctaa gctgctacta cgttctcgga ttgcccttgc gctaccttct cggctacaag 420  
ttcaac 426

<210> 9527

<211> 374

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-B1

<400> 9527

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gctacgccgg cggaacgacc gggcttctta tctgggccgt caccctcgcc ggctctctcg 120  
gcgacggcgt cctcctcgtc tacaacacca gcgctctcgc cggctaagag agcatctacg 180  
tgtaacacag ggccgggtct ctgcttgcat gcacgtctct gtaatctaca tagctacctc 240  
ctgtgaatgt atgcaatcaa cgatgcagag taattgatcc gaacagatgg tttatgtgta 300  
tgtacgtaac gctgtaacca tatacttctt actttggaaa ctgtaaaaag ggtggattct 360  
tgagccccg taaa 374

<210> 9528

<211> 433  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-B10

<400> 9528

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gaatacgacg gcaagacagc cgatgtgtgg tcttgtggag tgacccttta tgtgatgcta 120
gtcggtggtt accctttcga ggatcctgat gacccaaga acttcagaaa gaccattggg 180
agaataatgt caatccaata caaaatacca gagtacgtcc atgtatcca agactgcaag 240
caactccttg ccagtatttt cgtcgcaaac cctgcaaaga gaataacaat gagggagatc 300
aggaaccacc cctggttctt gaagaacttg ccaagagagc tcacggaagc tgccaagca 360
atgtactaca agagagacaa cagcgccccg acctactcgg tccagtcctg ggaggagatc 420
atgaagatcg tgg 433
```

<210> 9529  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-B11

<400> 9529

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ccccgggccga caccttccca agacaatcca tcgacttttt cgggtgctctg cgtgctcggg 60
tgtacgacga cgaggtgcmc aagtgggtga cctctaccgg tatcgagaac attggcaaga 120
ggctggtgaa ctgcggggac ggacccgtga cctttgagca gccaaagatg acagtggaga 180
agctgctaga gtacgggcac atgtttgtcc aggaccagga caatgtcaag cgtgtgcagc 240
ttgctgacac ctacatgagc cagcgagctc tgggtgatgc taaccaggat gcgatgaaga 300
ctggttcctt ctacggttag aacattctcc atacacaccc accaactctt gctgcatacg 360
aggaggtaaa tgcgcacagc aatgtacctt gcctgtatcg gcaggatgc 409
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<210> 9530  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum



<223> unsure at all n locations  
<223> Clone ID: LIB30-002-Q1-E1-B12

<400> 9530

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cgccgccgct gccaccacgg ggaccgcgtc tgatcccgtc agttgtagaa gtaactgatt 120  
agcctgatgg ctatggtcga tgagcctctc tatccaattg ccgtgctgat agatgagctt 180  
aaaaatgaag atattcaatt gcgcctgaac tccatcagaa gactttccac tattgcacgg 240  
gcacttggag aagaaagaac caggaaggaa ctgattcctt tcctcagcga aaacaatgat 300  
gatgaagatg aggtgcttct tgcaatggct gaagaattgg gtgtgttcat tccttatgtt 360  
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<210> 9531  
<211> 442  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB30-002-Q1-E1-B3

<400> 9531

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acgacgacga ggtgcgcaag tgggtgacct ctaccggtat cgagaacatt ggcaagaagc 120  
tggtgaactc gcgggacgga ccagtgacct ttgagcagcc aaagatgaca gtggagaagc 180  
tgctagagta cgggcacatg ctcgtccagg agcaggacaa tgtcaagcgt gtgcagcttg 240  
ctgacaccta catgagccag gcagctctgg gtgatgctaa ccaggatgcg atgaagactg 300  
gtaccttcta cggttagaac attctccata cacaccacc atctcttgct gcataggang 360  
aggtaaaggg gcacagcaag gtactttgcc tgtaccggca cgatgcancg accagactgc 420  
caagaacttc gaccaacgg cg 442

<210> 9532  
<211> 445  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB30-002-Q1-E1-B4

<400> 9532

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gtacgacgac gaggtgcgca agtgggtgac ctctaccggt atcgagaaca ttggcaagag 120  
gctggtgaac tcgcgggacg gacccgtgac ctttgagcag ccaaagatga cagtggagaa 180  
gctgctagag tacgggcaca tgcttgtcca ggagcaggac aatgtcaagc gtgtgcagct 240  
tgctgacacc tacatgagcc aggcagctct gggatgatgct aaccaggatg cgatgaagac 300  
tggttccttc tacggttaga acattctcca tacacacca ccatctcttg ctgcatagga 360  
ggaggtaaag gggcacagca atgtactttg cctgtnacgg caggatgcac cgaccagact 420  
gccaagaact tcgaccaac ggcga 445

<210> 9533

<211> 451

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-B6

<400> 9533

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tgatatcaaa caatggcgga acacttggct tcgatatttg gtacagagaa agacagggtc 120  
aactgtccat ttacttcaa gattggagct tgctgcatg gcgatcgctg ctctcgcatc 180  
cataacaggc caaccatata acctactatt gtgctcatga acatgtatca gcgccttgat 240  
atgattacc ctgggggttga tgctcaaggc cagccgatag atcctcgcaa gatgcaggag 300  
cattttgaag atttttatga ggatatcttt gaggaactga gcaagtttgg tgagattgag 360  
accctcaacg tctgtgacaa cttttctgat cacatgatag gcaatgtgta tgtccagttc 420  
agagaggaag atcaggcagc agcagctcat a 451

<210> 9534

<211> 295

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-B7

<400> 9534

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aagcttctag acacttccag tcggaggagg agctcacgcc gcagcagcag ccatggcgctc 120  
caccaaagtc cagcgtatca tgaccagcc catcaacctc atctttcggg ttctcagagc 180  
aaagcgcgca tccagatctg gcttttcggg cagaaggata tgcggatcga gggtcgtatc 240  
atcggctttg atgagtacat gaacctgggt ctcgaggatg ctgaggaaat caaca 295

<210> 9535  
<211> 412  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-B9

<400> 9535

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agagcttcac ggttgacgcg ttcacgcgca acgcgaccga ctgggagctc gtttgtctgg 120  
gaaacctcgt ggggttgccc atcgtcgtgg tgcctacggg cttcaagagc atcgaacacc 180  
caccaaaagg caacacgagg agacgaacca cagtgcgcac gggcatatat gctccccctg 240  
accatgacca cattgctcta gcgttggcga tggcgatca gtccgtcacc gatcaccaca 300  
atcaacggcc accgattgac gcaaactaca acatacaca gtgattagcc ggctgatgaa 360  
atggtattga cactgacact ccgtgtgctg tttcacttga gacaatgaaa ta 412

<210> 9536  
<211> 349  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C1

<400> 9536

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tggtgcatg tgtgtcgtgc tggtcctgat gatccagctg caggcgccgg cggctgcgca 120  
ggagatacca tgcgaccagt gcgggcccgg atgcgccag gcgtgcaatg cgcagggccc 180  
ctacttctgc aacagcttct gcaacatctt tcccaccctg tgcaactact gcttcctcat 240  
ccaatccggc ttgtgcattc gcgagtgcgc aaacctctgc aggtcaact gcgagttgat 300

gaccatgcac gaacgcatcg acatgcatgg attccagggt gtccatgag

349

<210> 9537

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C11

<400> 9537

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gcaggttatt tgctaaaggc cttatgtgat gaaagttgga cgcttgact taaatctggc 120  
ctccatcata ctactgacat gatacttggt ctttttgcag ctgcaaggat gaggggtggct 180  
gcaaacgaga aggcggaggc tgagaagatt gtccagatca agcgtgccga ggggtgaagca 240  
gaggccaagt acctgtctgg cctcggatc gcccgccagc gccaggccat tgtggatggc 300  
ctgagggaca gcgtcatggg cttctcagtc aatgtgcctg gcaccactgc aaaggacgtg 360  
atggacatgg tgctgatcac ccagtacttt gatactatga aagagattgg cgcgtcatcc 420  
atgtcctctg cgggtg 435

<210> 9538

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C3

<400> 9538

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tcgagaggtt cgagaaggaa gccgctgaga tgaacaagcg gtcgttcaag tacgcctggg 120  
tgcttgacaa gctgaaggcc gagcgtgaga ggggtatcac cattgatatt gccctgtgga 180  
agttcgagac caccaagtac tactgcaccg tcattgatgc ccctggtcac cgtgacttca 240  
tcaagaacat gattactggg acctcccagg ctgactgtgc tgtgctcatc attgactoca 300  
ccactggtgg ttttgaggct ggtatctcca aggatggcca gaccctgag caccgctcc 360  
ttgctttcac tcttgagtg aagcagatga tctgctgctg caacaagatg gatgccacca 420  
ctcctaagta ctcgagggt cggtatg 447

<210> 9539  
<211> 339  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C4

<400> 9539

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cagcacccaa gacgtgtcgt gtattgttgt gaggtgatat tgtaactgta agctagatac 120  
tacacaagag tgggtccggt ccctctgtcg ctagggcaat agcgtcgctt tgtcttggtt 180  
taccacaaca aggatgtttc tatatgatgt acaagatata cacacattgc tgggtgctgtt 240  
gctgttgtgg aagtgaagga cctgctgttc gtcgccgtgc caagttgggt taaaaagggt 300  
caaagttgtt ggggtttgtca cgcaacctga atgtttgggt 339

<210> 9540  
<211> 344  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C5

<400> 9540

attcccgggc cgacctgaag gcaaacaaaa aaaagatcaa ggctgccgtg aaaaagatgt 60  
acgacatcca ggccaagaag gttaacaccc tgatcaggcc tgatggcaag aagaaggcgt 120  
acgtgaagct gacaccagac tatgatgctc ttgacgtggc caacaagatc ggcatcatat 180  
aagtcagagg gacggtcctg cagtaggcgc ttgtgtcgtg gtttcttatg ttattggagt 240  
ttttagttg ttacttagca aaggggtcga gtgggtccat tgcctaccat atcgccgcgc 300  
actttcatga atttgatgca atcgaagtga cttgtgttga tgcc 344

<210> 9541  
<211> 354  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C6

<400> 9541

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 tgggaaggag atcgaaatcg acattgagcc caccgacacg attgatagga tcaaggagcg 120  
 tggtgaggag aaagaaggca ttcctcctgt gcagcaaagg ctgatttatg ctggtaagca 180  
 gcttgagat gacaagactg ccaaggacta caacatcgaa ggtggctcgg tcctccatct 240  
 tgctcttgct ctgaggggtg gttactagtt aagctgtaat ggaaacgctt gcgtcctgag 300  
 agaagtgacc attggtggca tggaacctgt gttgcaaaga aataataaca aact 354

<210> 9542  
 <211> 331  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C7

<400> 9542

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 gcggaacgac cgggcttctt atctgggccg tcaccctcgc cggcctcctc ggcggcggcg 120  
 tcctcctcgt ctacaacacc agcgctctcg ccggctaaga gagcatctac gtgtaacaca 180  
 gggccgggtc tctgcttgca tgcacgtctc tgtaatctac atagctacct cctgtgaatg 240  
 tatgcagtca acgatgcaaa gtaattgatc cgaacagatg ggttatgtgt atgtacgtaa 300  
 cgctgtgacg atatccctcc tactttggaa a 331

<210> 9543  
 <211> 334  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C8

<400> 9543

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 tggaagaggt ggagcgcaag tttgtttcga ttgggtttgt gcatattctc atcgggtgctt 180  
 ggagtggagc tacggcgccc actggagctg ccggtctccg acgcctcccc ggtgaccttt 240  
 ctggccgaaa ggcggcctgg tgaagccgct tcgtttcttc ctctgggctt gattccattt 300

gagatgcggc tgttcaactt caacatggag tcct

334

<210> 9544

<211> 317

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C9

<400> 9544

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aattgactta ctacacgccc atagtatgaa actaaggaga ccgatatctt ggcagcattc 180  
cgagtaagtc ctcaacctgg ggttccgccc taataaccac gggctgcact acctgccgaa 240  
tcttctaattg gtccattgac aactgtttgg acttattgac ttaccactca tgatcgtcac 300  
aaaggacaat gctatca 317

<210> 9545

<211> 376

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-D1

<400> 9545

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ttctctctcg tcttctctt gctggccgcc ggctctggag ctatgccgca ggacaagagg 120  
attcacagga attatgttct tctcgatctc gatacaattg agatccgccc aaatggcaag 180  
gaggaaatta gttctagcaa aattcatgtc tctgttgaga gtggcagcac aatatgtcta 240  
acttgcgaga acttgacaaa taaagctgtc agttatctta gtgagaaaca aacacaagat 300  
gagatcatgg agattcttca tgggtgcctgt tctcagacat tctccttaga acagaagtgt 360  
cctgagatgg tggact 376

<210> 9546

<211> 375

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-D11

<400> 9546

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ggcagatctt tatggggctt atggtgaacc ctctaaacc tggagacatc tcgtacctga 120  
agtactctgc tgaaagtaag tctatccttg aatctttaag gaggaggga caaataatga 180  
cagacggttt caatagttgc cgaaatgttg tctgcaattt cacagaagga gctatgtatt 240  
ctttcccgca aatacggctg ccgcagagag ctatggatgt agcacagagc gctggcagaa 300  
cgcacgatgt ttactactgc ctgaggcttc tggaatctac tggaatttac actgttccaa 360  
gctcaagttt tggtc 375

<210> 9547

<211> 398

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB30-002-Q1-E1-D12

<400> 9547

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gttgaaagaa caaggtgatc cttgcaatga tttagatgaa gctttggaat gatataattg 120  
aaataacttg gagctccgga aagaaaagat gaacaacttg gaaccgagaa tttgatatca 180  
tgaacgaact ccgaaagaag gaataaatca cttggaggaa acaagaataa gaattatgtt 240  
atgcgtatcc ttcaccgata taaattgatg acaagcaacg gatttttgca tactacttat 300  
tctcgtagaa aggattaaga tagatattgc gcaaacttgg gaaggctctc atcgaaccac 360  
gggtaggatt ganacaacga ataaattgat atgataac 398

<210> 9548

<211> 389

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-D2

<400> 9548



ccgggtcgac ccgggtcaat cacaagcaca ccgcgtggta tcattccccg tccccacatt 60  
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 cctccccctc acccggacaa tggagggcag ccttgatgca tgcaagctag ctaattcttc 180  
 cacgtacggc caaagtcaac tatatatatt cgcaataata tgcgctcgat cgggtacttg 240  
 ataataaaac ttgagtatgg ccctgctctc atgtgggtgt gtacttaaat ttttgtttgg 300  
 aactttgggt gtgaacttaa ttagttacaa cgtgttatca ataaaactgc ttccgttcca 360  
 aatcataata aaaaatactc cttttttcac 389

<210> 9549  
 <211> 256  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-D3

<400> 9549

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 tcacacatga ggatgtgtac aagctggctg agacaattaa atcatcttca tgttgtaaga 120  
 tcactcgtga acctggctct gtcaaggag ggtccactgt gattgctttt gcaacagacc 180  
 cagatgggta catggtcgaa cttaaccaga aggggtccgaa gcctgagcct ctctgtcaag 240  
 ttatgcctcc tgttgg 256

<210> 9550  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-D4

<400> 9550

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 ttcagcaagg ttgggttcat cttccgtgag cacaacgcat cccctgggta ctatgatggc 120  
 cgggtactgga caatgtggaa gctgcctatg ttcgggtgca ccgacgccac acaagtgatc 180  
 aacgaggtgg aggaggtcaa gaaggagtac cctgacgcgt atgtccgcat catcggattc 240  
 gacaacatgc gccaggtgca gtgcgtcagc ttcatcgcct tcaagccacc gggctgcgag 300

gagtccggca aggcctaaac agctcactca cgacaggcca tatataaagt gccattgcag 360  
 ttttgtcaac tctgacattg ctttgggttt tccttctcca ttt 403

<210> 9551  
 <211> 100  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-D5

<400> 9551

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 cctacggtac tgcgccttgc tcatcattgc acagcttaat 100

<210> 9552  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-D7

<400> 9552

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 ggcggtggca acgcgcagaa gtccaagatg gcgagggaga ggaacctcga gaagctgaag 120  
 ggcggcaagg ggagccagct cgaggccaac aagaaggcca tgaacatcca gtgcaagata 180  
 tgcattgcaga ctttcatctg caccacctct gaagcaaagt gcaaggagca cgccgaggcg 240  
 aagcatccga agagcgacct cgtccagtgc ttccccacc tcaagccgtg atatctgcc 300  
 gatcggacgg agagagagag aagctgccgt aatccagcta gtattatcat gttccgcaat 360  
 gactggttgt tgacctaaagc atgggtctga actccggtgt gctgctgtcc cagctgcctt 420  
 ggttgtgtgc ccatcta 437

<210> 9553  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB30-002-Q1-E1-D8

<400> 9553

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 ggtgtacgac gacgaggtgc gcaagtgggt gacctctacc ggtatcgaga acattggcaa 120  
 gaagcttgtg aactcgcggt acggaccagt gacctttgag cagccaaaga tgacagtcga 180  
 ngaagctgct agagtacggt cacatgctcg tccaggagca ggacaatgtc aagcgtgtgc 240  
 agcttgctga cacctacatg agccaggcag ctctgggtga tgctaaccat gatgcgatga 300  
 agactggttc catctacggt tagaacattc tccatacaca ctcaccatct cttgctgcat 360  
 acgatgatgt aaatgggcac atcatggtaa tttgcctgtg ccgggacgat gcaccgacca 420  
 gactg 425

<210> 9554  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-002-Q1-E1-D9  
 <400> 9554

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 cgcagtgtgg cttgaccaac tccaactaca ccgagctgag ccagctgtac ccgaagtaca 120  
 aggaccaagg ctttgagatc ttggctttcc catgcaatca gtttggtggg caggagcctg 180  
 gcaccaatga tgagatcggt cagtttgcct gactcgctt caatgccgag taccctattt 240  
 tcgacaacgt tgatgtcaat ggcaacaatg tttctccccg atacaagttc ctgaagtcta 300  
 gcaaaggtgg ccttttcggc gacagcatca agtggaactt ctccaagttc ttggttgaca 360  
 acgagggctg cgctgtagac cgctatgcac cgaacactat cccacctgag cattgacaat 420  
 gat 423

<210> 9555  
 <211> 337  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-002-Q1-E1-E1  
 <400> 9555

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tgtcaccaca aacagaaact aaagcatgtg ttggatttaa agctggtgtt aaagattata 120  
aattgactta cgacacccca tagtatgaaa ctaaggatac tgatatcttg gcaccattcc 180  
gagtaagtcc tcagcctggg gttccgcccg atgaatcatg tgctgcaata actgccgaat 240  
cttctactgg tacatggaca actgtttgga ctgattgact taccagtctt gatcggttta 300  
aaggacgatg ctatcacatc gagccttggt gctgggg 337

<210> 9556  
<211> 365  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-E2

<400> 9556

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cagagtacga ttaacctctg gatttgaaat cagtgccttat atacctggta ttggccataa 120  
tttacaagaa cattctgtgg tattagtaat atgaggaagg gtttcggatt taccgggtgt 180  
gagatatcgc attattcgag gaaccctaga tgctgtcgca gtaaagaatc gtcaacacgg 240  
gcgttctaaa tatgggggtca gcacgccaaa ccaataagtg attttagccc ttatcaaaag 300  
aaaacggatt cttgaacctc tttcacgctc atgtcacgtc aaggtagtgc agacaaaaga 360  
actgc 365

<210> 9557  
<211> 437  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-E3

<400> 9557

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ttgtgaactc gcgggacgga ccagtgcacct ttgagcagcc aaagatgaca gtcgagaagc 180  
tgctagagta cgggcacatg ctcgtccagg agcaggacaa tgtcaagcgt gtgcagcttg 240  
ctgacaccta catgagccag gcagctctgg gtgatgctaa ccaggatgcg atgaagactg 300

gttccttcta cggtaaaggg gcacagcaag gtactttgcc tgtgccggga tgatgcaccg 360  
 accagactgc caagaacttc gacccaacgg cgatgagtga cgacggcagc tgcctttaca 420  
 ccttttaagc atgcaaa 437

<210> 9558  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-002-Q1-E1-E4  
 <400> 9558

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 gctaaaacac tggctctgaca atgctactcg agagtttgca ggttcggcct gggaggcatt 180  
 gaagcatatc agacaggctg ttgatttctt ggtgatttct cttaaagcaa tgagaacact 240  
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 tggatatgta ctggatgacg tcaatggttc agacactatt tcagcagagt tcgcatcaag 360  
 cttgagagct gcaacgcgtg aggaagcaca tactggtcac aactttctct atac 414

<210> 9559  
 <211> 211  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-002-Q1-E1-E6  
 <400> 9559

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 aataaggtca ccctttaaac tgcctgcttg aatcaataac aaggcagaaa acacctggcc 120  
 aaactgaaac atcttagtac ccaaaggaaa aaaaaaaca aaaaaaaaaa aaaaaagcgg 180  
 gcgccccaaa agatataagc ctatatatac c 211

<210> 9560  
 <211> 364  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-E7

<400> 9560

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tcctcaaggc catcaaggcc atgagtcctc tcaagcctat cccggtggtc gtcattgtcgt 120  
cggagaacga gccccagagg atcagcagat gcctcaaggc tgggtgctgaa gattacatcg 180  
tcaagcctct tcagagcaag gatgtgccgc gcctgaggag ctgctcgaac gcgaaaccca 240  
aggaccctcc atgcagcact gtgagcaaga gcgcggacca tatagctgct gtcgatggca 300  
cgtcgtcgtc gctgccacgg cgagcacacc tcaccgatat tgccatggtc ctccactcgt 360  
cgag 364

<210> 9561

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-E9

<400> 9561

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ggagagcttc acggttgacg cgttcatcgg caacgcgacc gactgggagc tcgtttgtct 120  
gggaaacctc gtgggggttgcc ccatcgtcgt ggtgcctacg ggcttcaaga gcattcgaaca 180  
cccaccaata ggcaacacga ggagacgaac cacagtgcgc acgggcatat atgctcccc 240  
tgaccatgac cacattgctc tagcgttggc gatggcgtag cagtcggtca ccgatcacca 300  
caaacaacgg ccaccgattg acgcaaacta gaaaatacac aagtgattag ccggctgatg 360  
aaatggtatt gagaagaaaa ctccgtgtgc tgtttcc 397

<210> 9562

<211> 287

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-F1

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catggattgg ccgctacgga tcaacttgact gggagtgaaa tttggaacgg gtatacttga 120  
 cgatgaggat atcaatcact tgaaagatag aggtaatcat tcggttgccg atccggttaca 180  
 agatcaagtc ggattggctc ttgggcggtg tacaacatgc agttcagaag accatttgta 240  
 cagtactcat acgtcaatcg aagacgactc cccaaacggt ggtaact 287

<210> 9563  
 <211> 271  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-002-Q1-E1-F10  
 <400> 9563

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 tggctcctac agtggtcggc agcgagtgag tcttctgtat gtatctacat atcacaccaa 120  
 aaggttaccg aataagatgt gtgattggct ttgcgcgtgt acccatacca gcatcgatcc 180  
 tgtatcactt gtgtggtagt ttgcacaaaa cctgcttgaa aatgtttcat ggaaacttct 240  
 ttgcctggcg atgatgcctg tattgaataa g 271

<210> 9564  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-002-Q1-E1-F2  
 <400> 9564

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 aaccgccact gtcatttggc tatgtcccat tgcttgatgt tctgagtgtt tcaaagtgtg 120  
 gtcttagttg gcatgaaatg gtcaagttaa gtacatttct tcatgagacc tctgttcgag 180  
 acctgaggtt ggggtttaaa tgcgaaaaga tttgggttca accagagtgt ctgacaaaaa 240  
 ggctggcatc tgtgttccac caactaagga ttgtcaatct agttgacatt cctgaagggg 300  
 atgatctcac ctggacaatg ttcatTTTTGg aagcggtgcc gtccctagag gagttctaca 360  
 tgacggtaat ggaccatcct tgtgaaatgc aatggatcac gagaaaagga gggcaagttg 420  
 tatatcgacg acaaaggtgt ga 442

<210> 9565  
 <211> 375  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-F4

<400> 9565

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 cctatgttcg ggtgcactga cgccacacag gtgatcaacg aggtggagga ggtcaagaag 180  
 gagtaccctg acgcgatatgt ccgcatcatc ggattcgaca acatgcgta ggtgcagtgc 240  
 gtcagcttca tcgccttcaa gccaccgggc tgcgaggagt ccggcaaggc ctaaacagct 300  
 cactcagcagc aggccatata taaagtccca ttgcagtttt gtcaactctg acattgcctt 360  
 ggggttttcc cttct 375

<210> 9566  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-F5

<400> 9566

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 aattgactta ctacaccca gagtatgaaa ctaaggatac tgatatcttg gcagcattcc 180  
 gagtaagtcc tcagcctggg gttccgcccg aagaagcagg ggctgcagta gctgccgaat 240  
 cttctactgg tacatggaca actgtttgga ctgatggact taccagtctt gatcgttaca 300  
 aaggacgatg ctatcacatc gagcctgttg cctgggacga cagccaatgg atctggtagg 360  
 tagcttatcc attagaccta tttgaagagg gttccgttac taacatgttt act 413

<210> 9567  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB30-002-Q1-E1-F6

<400> 9567

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attctagtgt ttgacttggg tggcgggtact tttgatgtct ctgtattgga gggtggagat 180  
gggtgtatttg aggtgctttc cacatctggg gacacacact taggtggaga tgactttgat 240  
aagaaaattg tagattggct tgctagcacc ttcaagaatg atgaaggcat cgatcttctt 300  
aaggataaac aagcccttca gcgtcttact gaggcagcag aaaaagctaa gatggaattg 360  
tcaacgctca cacaggcgaa cattagcttg ccattcataa ctgctactgc tgatgggccc 420  
aaacacattg aggcaaccct ctctagagct 450

<210> 9568

<211> 445

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-F7

<400> 9568

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gggtgtacga cgacgagggt cgcaagtggg tgacctctac cggtatcgag aacattggca 120  
agaagctggg gaacgcgcgg gacggaccag tgacctttga gcagccaaag atgacagtgg 180  
agaagctgct agagtacggg cacatgctcg tccaggagca ggacaatgct aagcgtgtgc 240  
agcttgctga cacctacatg agccaggcag ctctgggtga tgctaaccac gatgcatga 300  
agactggtac cttctacggg tagaacattc tccatacaca cccaccatct cttgctgcat 360  
atgacgacgt aaaggggcac agcaacgtac tttgcctgta ctgggatgat gcaccgacca 420  
gactggcaag aacttcgacc caacg 445

<210> 9569

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-F8

<400> 9569

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aggggtgaagc agaggccaag tacctgtctg gcctcggat cgcccgccag cgccaggcca 180  
ttgtggatgg cctgagggac agcgtcctgg gcttctcagt caacgtgcct ggcaccactg 240  
caaaggatgt gatggacatg gtgctgatca cccagtactt tgatactatg aaagagatcg 300  
gcgcatcctc caagtctcgc gcggtgttca tcccccatgg ccctgggtgcg gtgcgcgaca 360  
tcgccacgca gatccgccat ggtcttcttc aaggccagtc tgcctctgac aactagcagt 420  
tggctttgcc ggcatgaact tt 442

<210> 9570

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-G1

<400> 9570

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gataggctct cccacaaaga gccgcattgc ctgatgtag ttgtcactat ccaatgtaaa 120  
gcggtgatac attcctgcag gcaaaacaat catgccacct ttcttaactg ctatacggat 180  
ccactgttcg ttttggcccc tcacatcaaa gtatccactg ccctcgagac aatagcgtat 240  
ctcttcatca gtatgcaagt gctcttcaaa gaagttcttc agcttggcct catagtttgg 300  
caacttctct ggacatacgt cgcaaagtgc cacataagag tatcccctgt cctcacggat 360  
tttcttgaga ttctcgtctt tctcccagtc atcagcattc atgtttcacc ttacaacacc 420  
caattctgac catttggca 439

<210> 9571

<211> 437

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB30-002-Q1-E1-G10

<400> 9571

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gaagctggtg aactcgcggtg acggaccagt gacctttgag cagccaaaga tgacagtgga 180  
gaagctgcta gagtacgggc acatgctcgt ccaggagcag gacaatgtca agcgtgtgca 240  
gcttgctgac acctacatga gccaggcagc tctgggtgat gctaaccatg atgcatgaa 300  
gactggtacc ttctacggtt agaacattct ccatacacac ccaccatctc ttgctgcata 360  
ngaggaggta aaggggcaca gcaacgtact ttgcctgtna cggcatgatg caccgaccag 420  
actgccaaga acttcga 437

<210> 9572

<211> 432

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-G3

<400> 9572

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agctcctcct catcggcgac tccggcgctc gcaagagcag tctcctcctc cgattcacat 120  
ccgactcatt cgaggaccta tccccaacca tcggcgtgga cttcaagggtg aagatgggta 180  
acattgccgg caagaagctc aagctcgccg tctgggacac cgctggacag gaacgggtta 240  
ggaccttgac cagctcttac tacacacggg cacaagggat catcatgggt atgtacgatg 300  
ttactcgccg agaaacattc accaatctct ctgacatatg ggccaaggaa attgacctgc 360  
attcgaccaa ccaggactgt gtaaagatgc ttgtcggaaa caaagtggac aatgaaaatg 420  
agagggctgt ca 432

<210> 9573

<211> 427

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-G4

<400> 9573

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 ttccgtgagc acaacgcac tccctgggtac tacgatggcc ggtattggac aatgtggaag 120  
 ctgcctatgt tcgggtgcac tgacgccaca caggtgatca acgaggtgga ggaggtcaag 180  
 aaggagtacc ctgacgcgta tgtccgcac atcggattcg acaacatgcg tcaggtgcag 240  
 tgcgtcagct tcacgcctt caagccaccg ggctgcgagg agtccggcaa ggcctaaaca 300  
 gctcactcac gacaggccat atataaagtg ccattgcagt tttgtcaact ctgacattgc 360  
 tttgggtttt ccttccccat ttatctttcc taattgttcc taagaatatg tgtatgtcca 420  
 tgttcat 427

<210> 9574  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB30-002-Q1-E1-G5

<400> 9574

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 tctgcgtgct cgggtgtacg gcgacgaggt gcgcaagtgg gtgacctcta ccggtatcga 120  
 gaacattggc aagaagcttg tgaactcgcg ggacggacca gtgacctttg agcagccaaa 180  
 gatgacagtc gagaagctgc tagagtacgg gcacatgctc gtccaggagc atgacaatgt 240  
 caagcgtgtg cagcttgtcg acacctacat gagccaggca gctctgggtg atgctaacca 300  
 ggatgcgatg aagactggtt ccttctacgg ttagaacatt ctccatagac acacaccatc 360  
 tcttgctgca tatgatgagg taaaggagca cnagcatgta ctttggcctg tgccgggagg 420  
 atgcaccgac cagactgcca agaacctcga cccaac 456

<210> 9575  
 <211> 375  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-G7

<400> 9575

acgcgctaatt gcagttacga cagatgggaa taaagccgat ggacagactt tgcttgcag 60

cgatcggaac aagtacaagt caatgcttat ccgtacatat tctactgtgt ggatgattgg 120  
 cggtcttgca ttcctagttt atatgggcca tctttatatac tgggccatgg tggttgtcat 180  
 tcaaataattc atggcgacag agcttttttaa tctactcaga aaatccagtg aagagaaaca 240  
 actgccaggg ttcaggctcc cgaattggca cttctttttc acggcaatgt tgtttacata 300  
 tggacgcttt cttagtcggg agcttggttaa cacagtatct tcagatcact tgttgataa 360  
 gctcgtcagc agcct 375

<210> 9576

<211> 383

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-G8

<400> 9576

catcgagtat accctgttat tgtgagaatt ctttaattcaa gagttatagg gagggactta 60  
 tgtcaccaca aacagaaact aaagcagggtg ttggatttaa agctgggtgtt aaagattata 120  
 aattgactta ctacacccca gagtatgaaa ctaaggatac tgatatcttg gcatcattcc 180  
 gagtaagtcc tcagcctggg gttccgcccg aagaatcagg ggctgcagta tctgccgaat 240  
 cttctactgg tacatggaca actgtttgga ctgatggact taccagtcac gatcggtaca 300  
 aaggacgatg ctatcacatc cagcctgttg ctggggaaga cagtcaatgg atctgttacg 360  
 tagcttatcc attagaccta ttt 383

<210> 9577

<211> 411

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-H10

<400> 9577

gcctccacct cccacctcat cgccgcccga ggctttgact ccatcgctc ctccctctc 60  
 ctcttcgtct ccggcaggcc aggtagttaa cagctccagc agccatggga aaggataaga 120  
 tccacatcag cattgtggtc attggccatg ttgactctgg caagtcaacc acgactggcc 180  
 acctcatcta caagcttgga ggcattgaca agcgtgtgat cgagagggtc gagaaggaag 240

ccgctgagat gaacaagagg tctttcaagt atgcctgggt gcttgacaag ctcaaggctg 300  
 agcgtgagag gggatcacc attgatattg ctctctggaa gttcgagacc accaagtact 360  
 cctgcactgt cattgatgct cctggtcacc gtgatttcat caagaacatg a 411

<210> 9578  
 <211> 322  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-H2

<400> 9578

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 ccagatctat caatggaagg ggaatactat gattccctgg tgcacgatt tggcgaacaa 120  
 ggatccctca tcgaaggatt cgggaggga gccgaaggtc cggacgcata tcggacacag 180  
 cttcgtcagc ggatgtccca ggatttcctg ttgacgaacc tggaagagcg gaggcgagcc 240  
 gccgacgatg tatgcagtga cccagcctct aaaaaggcca tgttgggtcc gcatgtgctg 300  
 accgttggag aaacaatggg ac 322

<210> 9579  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-H3

<400> 9579

gggtcgacag ctccatgatg acaagaaact ggctatcgtt cgacgtggtc cttcctgttg 60  
 ctctgtcatg cctgtttggg ttatctatat ctttctttgg attctcctgc agacggggcca 120  
 tctctgctac tggatttacg gtgctcggtg tagtgaacaa gtcgtgacc gtcgtgatca 180  
 atctgcgtat ctgggacaag catgcgtccc ttgtggggac aattgggctc ttgatatgca 240  
 tgtctgggtg tgttctctac cagcaatcga ccagatagcc caaggtgccc aagatcgagc 300  
 caaacgaaga ggactatgaa gacgggcaga atttgctgca cattcagccc gggcatgaga 360  
 gcagcccaag tcaaaatcat tcctcatatg cctactttac cttccctcgg caacctattc 420  
 gtggtatata tc 432

<210> 9580  
 <211> 333  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-002-Q1-E1-H4  
 <400> 9580

ccgggcccagac cagagattgg acttatgttg agagggatga ttgatcgcaa gcagagtcgc 60  
 gttgtgttag tgtcaccgga cttcctaaag taagattgtg aaagagctgc tgaagtcaca 120  
 ccaagctagc acagcggtga tagtgagtt catgacagtc ttgattagct tgagatcatc 180  
 aaggctgaag cgtcgatgca cgaagcgctt ggcacggcga gacccgctgg catctggcat 240  
 atgcgtgaac atcgtacggg gatctctcaa gaacagtacc gtcgcagcat gcagtgcgac 300  
 atccagcagc gtgtgccatg ccagcacaag ata 333

<210> 9581  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-002-Q1-E1-H5  
 <400> 9581

gtgcctctag cgtagaatgc ttgctcatga cgtgacgaac ttagagtcgt ctgagagttt 60  
 ggataatcat ctgacttagt atacctgagt attggccata atttagaaga acattctgtc 120  
 gtattagtaa gatgaggaaa ggttaaggat ttacccggtg tgcgatatca cattagtcaa 180  
 agaaccctag atgctgtcgc aatagtcaat cgtcaacaac ggcgttctaa atatgtggtc 240  
 aaaacaccac tgggttaagt gatttttagcc cttataaaaa caggatcgat tcatgagcct 300  
 cttacacgct catgtcacgt agaagtactg catacaaaaag aactggaaaa tgggatacac 360  
 tttgtcgtaa tccattagtt aacatggtgg ttaaccatat t 401

<210> 9582  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-002-Q1-E1-H7

<400> 9582

attcgcgggc cgacaccttc ccagaccaat ccatcgactt ttctcgggtgct ctgcgtgctc 60  
gggtgtacga cgacgaggtg cgcaagtggg tgacctctac cggatatcgac aacattggca 120  
agaggctggt gaactcgcgg gacggaccgc tgaccttga gcagccaaag atgacagtgg 180  
agaagctgct agagtacggg cacatgcttg tccaggagca ggacaatgtc aagcgtgtgc 240  
agcttgctga cacctacatg agccaggcag ctctgggtga tgctaaccag gatgcgatga 300  
ggactgggttc cttctacggt tagaacattc tccatacaca cccaccatct cttgctgcat 360  
acgaggaggt taatgggcac agcaaggtag ttgacctga ccggcacgat gcaccgacca 420  
gactgccaag aacttcgacc caa 443

<210> 9583

<211> 329

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-H8

<400> 9583

gacagacgaa agcagggtat ctaagtcgac atactaatac agagaacaca taacgattga 60  
ttcgcagcaa tacatgtcat tcacattcaa ctagaagtgc ctaagttccg ttttgagtgg 120  
cagggtctaag ggtgcgttct tcaatgtcaa tgaaagcgta ttcgtaaaaa tagttggaag 180  
aagaagactt aattttccat agtacaatct tattctttag taaaatcaag atcattttcg 240  
agcgggtgatg aacatctaaa accaaagggt ttttctgggc aacatccaaa taataagatt 300  
tttgaataac atgaattgac ttatcaca 329

<210> 9584

<211> 256

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-H9

<400> 9584

taatcttgat atatctcagt cctgtgcact cgtgcaacga caaagatgta catgcgccga 60  
ctatcgctc cactcgcgct gagaataaca ctttgatact gatgcagatg gcatgaccat 120



gcctctcacg ataggcatga aaattttcga tcagtcgagg tttcgtcaca ctatcgattc 180  
 ttgctagccc attgccccat aaaacttgtc atctcccccc gccatccgta caatctcatc 240  
 cctccccctc cttttg 256

<210> 9585  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-001-Q1-E1-G6  
 <400> 9585

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 gagttcttgg ctccgtgccg tgaaagcctc aagaagaacg cgcttaggat taggtcagca 120  
 tcagcttctc accctcctcc ctgcttgctc cgagatgcc a tggttaacgc caacgagttg 180  
 tagcactcgt ttcagacctt acttgacctg ttttgacctg agtaagctta agctgaaact 240  
 ggtaactgac gtgtcgtgtg tggctgtgtg ccaatagctt gtttatctgt ttattactgc 300  
 tgtaaatgct gtacttaaaa aatgtaacaa tctaattgtc ccgtgtgctg acaaggttgc 360  
 cagaaaaaaaa aaagacgggc ggaggaaaa 389

<210> 9586  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-001-Q1-E1-H6  
 <400> 9586

aattccccggg ccgacgtcgt caccggcacc cgcgtcaaga cccacttcgc ccggcccaac 60  
 tggcgcaaag tctacaagga catcgccctc aagcacgccg ggcagcgcggt cggagttttc 120  
 tactgcgccg cgccggtgct gatcaaggag ctgcgccagc ttgcccaaga tttctcgagg 180  
 aagacgagca ccaaattcga gttocacaag gagaatttct aactttgcag ccagcccagt 240  
 cacaagaagt tcctcctttt tttttagaaa agaaacaagt ttctcttttc gcgaggaaaa 300  
 agtctgttaa ttcagtacat acccagttct atagatggaa gtaggtgttg gttgattttc 360  
 acaagctggg tcaagagtta catcgatttt tttgcctaac aaaaacacaa gaagtcg 417

<210> 9587  
 <211> 343  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-H7

<400> 9587

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 ggaaggagat cggcctgtgg ttccctgagg gcattgcaga gtggaggagc agccagcaca 120  
 actggatcta tgaggcctaa gatgtgtcat gagtggttga gtgcagggtt cattaagcat 180  
 ctaccaaact agtctttggt tgtttacagt ttgagattt gtatcttggg aaccttggtt 240  
 gtgtgaactg aagttatctc cttgtgcttg ggcattcaag cggatatctgc tgctctatat 300  
 ttgatatatg gtattgctgt aaaaataaaa aagggcacta caa 343

<210> 9588  
 <211> 264  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB30-001-Q1-E1-A12

<400> 9588

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 ttgattagtg ccagtgtttg attttgttct gtttgtcatg gtacgaggaa agattaccga 180  
 gtagataagg tctagtagca gtttcgctgt acctaatcag tacccttggt tcattccgac 240  
 tagtaagtaa aaacttggtt ttcc 264

<210> 9589  
 <211> 357  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-A6

<400> 9589

ggtaccgata tagaattccc gggccgacaa cttcatagaa tacaccagcg acttttgcg 60  
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 cgacaagatt ggcaaaatgt tggatgaagtc tcggtacgga tgcatagaact ttgagcaggt 180  
 aatgatgaca gtggagaagg tgctaaagta ctggcatatg cctgacgacc accacgacag 240  
 tgtcaagcgt atgcatcatg ctgacaccta catgatcaac gcatttctgg gtgatgctaa 300  
 ccaggattcg atgaaggctg attcattcca ctcgatacac attctccata cactgcc 357

<210> 9590  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-C1

<400> 9590

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 ttgtgtgttc tggatttcaa cctcttcaca atctcacctt ggtgagattt atcgagcaaa 180  
 aagttggaac aggggagagc atcccgtagg tcaaacaaca gattgataga ggtttcacag 240  
 ctgttgagaa catgatcaaa ggctgtgctg ggaagtttgc tatgggagat gaagtccaac 300  
 tggcagatgt attccttgca cccagattt ttgctgcggt gactcggtat caaatcgaca 360  
 tgtcgaacta tcccaccctc gcgaggctct acgatcaata tatgacacac cctgcatttg 420  
 aag 423

<210> 9591  
 <211> 476  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-C10

<400> 9591

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 ctctgcgtgc tcgggtgtac gacgacgagg tgcgcaagtg ggtgacctct accggtatcg 120  
 agaacattgg caagaggctg gtgaactcgc gggacggacc cgtgacctt gagcagccaa 180

agatgacagt ggagaagctg ctagagtacg ggcacatgct tgtccaggag caggacaatg 240  
tcaagcgtgt gcagcttgct gacacctaca tgagccaggc agctctgggt gatgctaacc 300  
aggatgcgat gaagactggt tccttctacg gttagaacat tctccatata caccaccat 360  
ctcttgctgc ataggatgag gtaaaggggc acagcaaggt actttgcctg ttacggcagg 420  
atgcaccgac cagactgcca ggaacttcga cccagcggcg aggagttacg accgga 476

<210> 9592  
<211> 449  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-C3

<400> 9592

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ttcagcaagg ttggcttcgt cttccgtgag cacaacagct cccccgggta ctacgacggt 120  
cgatactgga caatgtggaa gctgcccattg tttgggtgca cgcacgccac acaggtgctc 180  
aacgaggtgg aggaggtcaa gaaggagtac cctgacgcct atgtccgtgt catcggcttc 240  
gacaacctgc gccaggtgca gtgcgtcagc ttcacgcctc tcaggccacc gggttgcgag 300  
gagtccggca aggcctaaac tacgagttga aacaatggcc tatctcgat gaaggtcttt 360  
tgtgaacttc acttttgtcc acaactctgc tgcacgactc tgctttcgga ccggagcata 420  
ccttttgttc tatatgattt gtgtatgta 449

<210> 9593  
<211> 421  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-C5

<400> 9593

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gggtgcatcg gccagctaac agaggactgg ggggaagtgc tcttctctgc gctcaagcgt 120  
gccggcggga cagccttcag caacatggcc gtcggttaca acaacgttga tgctgatgct 180  
gccaacagga atggcatcg catcggcaac acgcctgggtg ttcttactga gacgacggcg 240

gagctggcgg cgtcgctgtc ggtggcggct gcccgaggga tcgttgaggc cgaccaattt 300  
atgagggctg gtctctacga cggatggctc ctgcacttgt ttgttgggaa cttgctcaag 360  
gggcagactg ttggagtgat cggagctggc cgcacggtc cagcttatgc aaggatgatg 420  
a 421

<210> 9594  
<211> 448  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB30-001-Q1-E1-C6  
<400> 9594

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cggtcgatac tggacaatgt ggaagctgcc tatgttcggg tgcaccgacg ccacacaggt 180  
gctcaacgag gtggaggagg tcaagaagga gtaccctgac gcctatgtcc gcgtcatcgg 240  
cttcgacaac ctgcgccagg tgcagtgcgt cagcttcacg gccttcaggc caccggggtg 300  
cgaggagtct ggcaaggcct aaactacgag ttgaaacaat ggcctatgta tgaaggctct 360  
ttgtgaacgt cacttttgtc cagcactctg ctggacgacc agagcatatt tttcattcta 420  
tatggtctgt gtatgtatgt acgaacat 448

<210> 9595  
<211> 451  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB30-001-Q1-E1-C7  
<400> 9595

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ggtgtcatcg gccagctaac agaggactgg ggggaagtgc tcttctctgc gctcaagcgt 120  
gccggcggga cagccttcag caacatggcc gtcggttaca acaacgttga tgtcgatgct 180  
gccaacagga atggcatcgc catcggaac acgcctggtg ttcttactga gacgacggcg 240  
gagctggcgg cgtcgctgtc ggtggcggct gcccgaggga tcgttgaggc cgaccaattt 300

atgagggctg gtctctacga cggatggctc ctgcacttgt ttgttgggaa cttgctcaag 360  
 gggcagactg ttggagtgat cggagctggc cgcacggct cagcttatgc aaggatgatg 420  
 attgacgggt tcaagatgaa cttgatctac t 451

<210> 9596  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-001-Q1-E1-C8  
 <400> 9596

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 cattcttggc atcagatctc ccgttctgag aagtatgctg gaagaagcta gagtggaaga 120  
 tgggtctcaga aacatcctga tttccgggtg accatctcaa gcagtccgtg tcttcatcag 180  
 atttctgtat tcttcacgct ttgagcagga tgagatgaag aaatacgccc ttcatttgct 240  
 cgtactctct catgtttact cgttacaatc tctgaagatc gtctgtaccg accagctcga 300  
 gaggtttttt ctgcctcctg ataacgcggt ggacgttcta caacttgacac ggctatgtga 360  
 cgcaccaagg ctctcactca tctgtactcg tatgatcact ggagatttca agaccatctc 420  
 tctgtcagaa ggggtggaaag tgatgaga 448

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 <213> Triticum aestivum  
 <223> Clone ID: LIB30-001-Q1-E1-D5  
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 agggcagcag tagttttagt ttgtcttggc ttcatgccgt ggtctggcgt tatgccgtgg 180  
 ggatgcaaac cactggagct ctgcagcggc gtctgggtgg ggctccgctc gttttctttc 240  
 ttgccaccat ggtggtggaa agtgggaagac gccggatctg gcaagatccc cttgaataag 300  
 ctgccttctg tggtgtgggt ttccctgatc tggagggcat ccaactgcta ctgcttgttt 360

tctcaggcta ccatggtggt ggatgagaag caggatagtt gcagaatcct gaagtttata 420  
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<210> 9598  
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 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-001-Q1-E1-D6  
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 ctgctcgga tcttctgcag gtgcggcttc ctgctccaca ccatcatcac tcgcaccggt 180  
 caacacaaca tccacgtgta acacatggcc gggctcttga atgcaagcac ctctgtatat 240  
 gccacaaacc tagctcctgt gaatttatgt atgtatgcac gcagtgtaac agatcgtagt 300  
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<210> 9599  
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 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-001-Q1-E1-D7  
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 ctgagaataa atttttgtgt ggaattatgt cagctaaaaa ccttttattg gatgtatcct 180  
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<210> 9600  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
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<400> 9600

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ggccgatact ggacaatgtg gaagctgcct atgttcgggt gcaccgacgc cacgcaggtg 180  
ctcaacgagg tggaggaggt caagaaggag taccctgacg cctatgtccg cgtcatcggc 240  
ttcgacaacc tgcgccaggt gcagtgcgtc agcttcacgc cattcaggcc accgggttgc 300  
gaggagtctg gcaaggccta aactacgagt tgaagcaatg gcctatgtat gattgtcttt 360  
tgtgaacttc acttttgtcc aggactctgc tttccgacca gagcatattt ttcgttcggt 420  
atgatctgtg tntgtacgaa cataggttgt ggag 454

<210> 9601

<211> 337

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-E10

<400> 9601

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tcgccggcct cctcgcggc gccgtcctcc tcgtctacaa caccagcgct ctgcgccggt 180  
aagagagcat ctacgtgtaa cacagggccg ggtctctgct tgcatgcacg tctctgtaat 240  
ctacatagct acctcctgtg aatgtatgca atcaacgatg caaagtaatt gatccgaaca 300  
gatggtttat gtgtatgcaa aagaaaaaga gactcac 337

<210> 9602

<211> 179

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-E6

<400> 9602

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caccaatcga acacacactc ctcccggctc cctcaaatgg cgctcctcgc tgtcaagggc 120  
 atggccattt caacggcggc cttccctggg aacaacaacg gggccttacc ttctcctcc 179

<210> 9603  
 <211> 351  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-E7

<400> 9603

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 actcaggggtt ggcattgtcat gtgagggatg tggtggagct gttaagcggg ttcttggcaa 180  
 aatggaaggt gttgagtcct tcgatgtaga catcaaggag cagaagggtca ctgtgaaggg 240  
 taatgtgacg ccggatgctg ttctgcagac tgtttcgaag acaggcaaga agacatcggt 300  
 ctgggagggt gaaccctcgg catctgctgt ttcgtcctaa aagacgcac t 351

<210> 9604  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-F3

<400> 9604

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 tctgctgaaa gtaagtctat ccttgaatct ttgaggagga gggcacaaat aatgacagac 180  
 ggtttcaata gttgccgaaa tggtgtctgc aatttcacag aaggagctat gtattctttc 240  
 ccgcaaatac ggctgccgca aagagctatg gatgtagcaa aaagcgctgg caaagcgccc 300  
 gatgtttact actgcctcaa gcttctggaa gccactggaa tatccactgt tccaggctca 360  
 ggttttggtc agaaagaagg ggtgttccat ctgaggacga cgatcctgcc cgcggaggaa 420  
 gacatgccgg cga 433

<210> 9605  
<211> 442  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-F6

<400> 9605

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cctggtattg gccataattt acaagaacat tctgtagtat tagtaagagg aggaaggggtt 180  
aaggatttac ccggtgtgag atatcgcat attcgaggaa ccctagatgc tgtcgcagta 240  
aagaatcgtc aacaagggcg ttctagtgcg ttgtagattc ttatccaaga cttgtatcat 300  
ttgatgatgc catgtgaatc gctagaaaca tgtgaagtgt atggctaacc caataacgaa 360  
agtttcgtaa ggggactgga gcaggctacc atgagacaaa agatcctctt tctaaagaga 420  
ttcgattcgg aactcttata tg 442

<210> 9606  
<211> 454  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-F7

<400> 9606

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aaggccctga atatccagat agcaagcatt gtgtgttctg gtattcaacc tcttcacaat 180  
ctcaccttgg tgagatttat cgagcaaaaa gttggaacag gggagagcat cccgtgggtc 240  
aaacaacaga ttgatagagg tttcacagct gttgagaaca tgatcaaagg ctgtgctggg 300  
aagtttgcta tgggagatga agtccaactg gcagatgtat tccttgacc ccagatTTTT 360  
gctgcggtga ctcgttatca aatcgacatg tcgaactatc ccaccctcgc gaggctctac 420  
gatcaatata tgacacaccc tgcatttgaa gctg 454

<210> 9607  
<211> 451

<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G1

<400> 9607

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aagcttggag gcattgacaa gcgtgtcatc gagagggtcg agaaggaagc cgctgaaatg 120
aacaagaggt ctttcaagta cgcttgggtg cttgacaagc tcaaggccga gcgtgagaga 180
ggtatcacca tcgatattgc tctctggaag ttcgagacca ccaagtacta ctgcaccgtc 240
attgatgccc ctggtcaccg tgacttcatc aagaacatga tcaccgttac ctcccaggct 300
gactgtgctg ttctcatcat tgactccacc actggtggat ttgaggctgg tatctccaag 360
gatggccaga cacgtgagca tgctctcctt gctttcactc ttggagtga gcagatgatc 420
tgctgctgca acaagatgga cgccaccact c 451
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<210> 9608  
<211> 451  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G5

<400> 9608

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ggccggtatt ggacaatgtg gaagctgcct atgttcgggt gcaactgacgc cacacaggtg 180
atcaacgagg tggaggaggt caagaaggag taccctgacg cgtatgtccg catcatcgga 240
ttcgacaaca tgcgtcaggt gcagtgcgtc agcttcatcg ccttcaagcc accggggtgc 300
gaggagtccg gcaaggccta aacagctcac tcacgacagg ccatatataa agtgccattg 360
cagttttgtc aactctgaca ttgctttggg ttttccttct ccatttatct ttcttatttg 420
ttcctaagaa tatgtgtatg tccatgttca t 451
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<210> 9609  
<211> 340  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G8

<400> 9609

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tcgggggggg cgtcctctc gtctacaaca ccagcgctct cgccggctaa gagagcatct 180  
acgtgtaaca cagggccggg tctctgcttg catgcacgtc tctgtaatct acatagctac 240  
ctcctgtgaa tgtatgcaat caacgatgca aagtaattga tccgaacaga tggtttatgt 300  
gtatgtacgt aacgctgtaa cgatatactt cctactttac 340

<210> 9610

<211> 408

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-H1

<400> 9610

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accgccagaa agacaaaaaa aagattctaa ggaatcaaaa aaaaggaaaa attgggtcta 180  
tggttcaacgg aaaaaaatc tcaagagcaa ggaaaagtat tttgtttccg ttcgccctac 240  
agtggcatat gaaatggacg aaggaagaaa tttagcaaca cttttcccgc aggatctctt 300  
gcaagaagaa aataatctcc aaattcgact tgtcaatttt atttctcatg aaaatagcaa 360  
gttaactcaa agaatttatc acacaaatag tcaatttggtt agaacttg 408

<210> 9611

<211> 406

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-H8

<400> 9611

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acaatgtgga agctgcctat gttcgggtgc accgacgcca cacaggtgct caacgaggtg 180  
gaggaggtca agaaggagta ccttgacgcc tatgtccgcg tcatcggctt cgacaacctg 240  
cgccaggtgc agtgcgtcag cttcatcgcc ttcaggccac cgggttgcca ggagtctggc 300  
aaggcctaaa ctacgagttg aaacaatggc ctatgtatga aggtcttttg tgaacgtcac 360  
ttttgtccac gactctgctg gacgaccaga gcatatTTTT cattcc 406

<210> 9612  
<211> 446  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-H9

<400> 9612

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tttacaagaa cattctgtag tattagtaag aggaggaagg gttaaggatt taccgggtgt 180  
gagatatcgc attattcgag gaaccctaga tgctgtcgca gtaaagaatc gtcaacaagg 240  
gcgtttctaaa tatgggggtca aaaagccaaa aaaataagtg atttttagccc ttataaaaag 300  
aaaacggatt cttgaacctc tttcacgctc atgtcacgtc gaggtactgc agaaaaaaga 360  
actgcaaaat ccgatccaat ttttcgtaat cgattagtta acatggtggt taaccctgat 420  
atgaaagacc gaaaaaaatc attggc 446

<210> 9613  
<211> 447  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-A10

<400> 9613

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gatctcatcc atagtgatga tctgcttgat gcaacccttt ccttgaggct gatgcgagaa 180  
gctggatatt atgtttcggc agatgatgtt cttcagaagt tcagaaacga taatggtgaa 240

ttcaaccttg ggctcagcaa agacattaga gggttgctca gcttgcaaga catatcacac 300  
ctcaacatgg gagaatcatc actctacaag gcaaacgaat tctcaagcaa gcatcttaga 360  
ttcacaatta agtatttggg gccaaacctt gcaatatatg tgaggcgggc actagaccat 420  
ccctatcatg tgagcctgat gcaatac 447

<210> 9614  
<211> 431  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB30-002-Q1-E1-A11  
<400> 9614

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atgggtttat ggatcatctg cgtttgcgt cgaaagtctc aagctgaaga agatcatgat 180  
gcaaacatgg ctgataccaa gatacaactt ccagtacagc ctgattaggg agaggggaatc 240  
catcaatagg ttaattgagc aggcaatatc agatgcggat caaagagggg tcaaagtgct 300  
cagtcttggg cttttcaatc aggaaagaca actcaatgga agtgggtgaat tatttacaca 360  
aaaatatcca aaattgagag ttcgacttgt tgacggaagt ggcttagcaa cagcagttgt 420  
tctcaagagc a 431

<210> 9615  
<211> 388  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB30-002-Q1-E1-A12  
<400> 9615

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cgtgaactac catggcaaga gctccaaggc caacagggtc acagtcatgg cagcggaaaa 180  
cctcgacgag aagaggaaca cggacaagtg gaaggggtctt gcgtacgata tctccgacga 240  
ccagcaggac atcaccagag ggaagggcat cgtggactcg ctcttcagg cgccccaggg 300

cgacggcacc cacgaggccg tcctcagctc ctacgagtag gtcagccatg gactcaagaa 360  
gtacgacttc aacaacacca tgggaagc 388

<210> 9616  
<211> 448  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-A2

<400> 9616

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gcattggtga ccagcagtg ctcctatgctt gcgatgccgc ccagttgctt ggcagaagaa 180  
tgtgaccggg ggtactctct tcctaacatg ccgctgctgt ttgcgatagc catggttggt 240  
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cagctacgtc agataaatgc ttcactgaga agacaagcca agatcgaatc ttatgctcct 360  
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<210> 9617  
<211> 446  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-A6

<400> 9617

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ctggtatttg ccataattta caagaacatt ctgtagtatt agtaagagga ggaaggggta 180  
aggatttacc cgggtgtgaga tatcgcatia ttcgaggaac cctagatgct gtcgcagtaa 240  
agaatcgtca acaagggcgt tctaaatatg ggggtcaaaaa gccaaaaaaa taagtgaatt 300  
tagcccttat aaaaagaaaa cggattcttg aacctctttc acgctcatgt cacgtcgatg 360  
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446

<210> 9618  
<211> 430  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-B5

<400> 9618

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aacattctgt agtattagta agaggaggaa ggggtaagga tttaccgggt gtgagatatac 180  
gcattattcg aggaacccta gatgctgtcg cagtaaagaa tcgtcaacaa gggcggttcta 240  
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ttcttgaacc tctttcacgc tcatgtcacg tcgagggtact gcagaaaaaa gaactgcaaa 360  
atccgatcca atttttcgta atcgattagt taacatgggtg gttaatcgta ttatgaaaga 420  
cgcacaagag 430

<210> 9619  
<211> 334  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-B8

<400> 9619

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aattgactta ctacacccca gagtatgaaa ctaaggatac tgatatcttg gcagcattcc 180  
gagtaagtcc tcagcctggg gttccgcccg aataaacagg ggctgcagta gctgccgaat 240  
cttctactgg tacatggaca actgtttgga ctgatggact taccagtcgt gggtgttaca 300  
aaagactacg ctatcaaatac gagcctgttg ctgg 334

<210> 9620  
<211> 441



<212> DNA  
 <213> Triticum aestivum  
  
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 <400> 9620  
  
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 aaggcaactt tgatcaaggc catggaggaa gcagatgtga aaaccaaagtg ggagaacagc 180  
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 ctcaagaagg aggttgctgc ttagattatc ttagtggatg gcatgttgag tttttgttc 360  
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<210> 9621  
 <211> 314  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C2

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 atcatatggg gctatcgaaa cggaaatctc ggaggtattc ctactagctc ctcaacctga 240  
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<210> 9622  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-D6

<400> 9622

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ttggaggact tcttaattgg gttaattggg taccagcaag ggaaagtgca agaggaactg 180  
gagaagtagg agaaacaatc aaggtaatgg aaacaagaac ggcagaaaaa gaatctcctt 240  
atgactacaa ccagaaacag tctgatgtgt accatggcat cggcgatggc aacgctggca 300  
gcagcgtaga tggatgatgat gataagaagg cgtgccatga cattcgtgat agtggtttg 360  
actatgggcc ccaagacatg gctgatgggt actacagcgg cagccattat ggcacgata 420  
gggagttgcc accactgagt catagaattt c 451

<210> 9623  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB30-002-Q1-E1-E11  
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tgaccacaag gatctgcata tgattgagaa gaagatcagg gacctcgaca aggccaggga 180  
tacgttgaag atgaggaacc tgaagaatga gctgactgct gccaggtgta agctcaaaca 240  
gtcaagagaa gtgatcagca atggcaagaa ggctctccta gatggtgctc tgatccagct 300  
ccacgcgtac aagaaactag aatcacttac tcggctcact atatgagtga gctgaccacg 360  
cttttcgcca ttattatact cgatatcatg agaatggtcc gccggtgtaa aacttggtgc 420  
tgccatgtct gcaaaataaa a 441

<210> 9624  
<211> 438  
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<213> Triticum aestivum  
<223> unsure at all n locations  
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<400> 9624

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 tatattgctg gaggagccac gcagaactct atcaggggtg cccaatggat gcttcaaact 180  
 cctggtgcaa caagttacat gggttgcatt ggaaaggaca agtatggtga ggagatgaag 240  
 agtgccgcta aagctgcagg agtcactgct cactactatg aggatgaggc tgctcctaca 300  
 ggcacatgtg ctgtctgtgt tgttggtggt gaaaggcat tgattgcaaa cttatctgca 360  
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 canaatacat ctacattg 438

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 <213> Triticum aestivum  
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 cagtgatgtg ctgggaacac acagactaaa cataacgaaa actgttcgca agttttcaat 300  
 tgatcggaat ttagtaccta ctggatctga gttccatgct ggaacgatac ccaactgtcaa 360  
 cagacatgga catgatgttt acgaatacca tggatgatgt tcagttgcct tgtcctctca 420  
 caa 423

<210> 9626  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB30-002-Q1-E1-E8  
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atTTTTggtg aaatactttg gcgcaaagac aggagctttt atcttccgcc tatttgccac 240  
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gcaccaatt tccttcatgg caatcacccg ctacgggcaa ccacaggcac tgatcatgca 360  
cttctaaat tacggtagca ctatccgggt aactctggca gttgatgacg aacaattccc 420  
agattgtcat aagcttttag atga 444

<210> 9627

<211> 434

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-F11

<400> 9627

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cctcataagg ctgttgacaa gtgagcagca gtcactgcat tgtacgtcca atacgaagcc 180  
gacgatcctg ccaaacaatga gcatcatcct caatcgagca ccagcgactg ctgaaccctc 240  
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agaaatacta gatcatgcta aatgagccat caattgtagt gcttgctgog catgtggcac 360  
gcagtttttg tacatatgtg attattcttc gcaagttgta agcctcgaga ttctagtacc 420  
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<210> 9628

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-F9

<400> 9628

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caatgtggaa gctgcctatg ttcgggtgca cgcagccac gcaggtgatc aacgaggtgg 180  
aggaggtcaa gaaggagtag cctgacgcgt atgtccgcat catcggattc gacaacatgc 240  
gccaggtgca gtgcgtcagc ttcacgcct tcaagccatc gggctgcgag gagtccggca 300  
aggcctaaac agctcactca ccacgggcca catataaagt gccattgcgg ttttgtcaac 360  
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aatatgtgta tgtccatgt 439

<210> 9629  
<211> 403  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-G11

<400> 9629

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gcctgctctg ttctgtgaaa tgagctgtgt gacccttgat gtaatgtctg tcaactttga 300  
aagtgtcgcg taactatgta tctgtatctt aaatacatgt cataaatctg taagcctttg 360  
aatcaggacc tgcagtcgat tggattact gattagagtg ata 403

<210> 9630  
<211> 440  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-G12

<400> 9630

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ttgacattgt tgacaccttc cgtcttcagg agcaacctgc ttttgacaag aagcagttta 180  
tctctcacat gaagcgctac atcaagaacc tctctgcca gcttgaaggg gatgacctag 240

atgttttcaa gaagaatgtt gagtctgccaa caaagtatct tcttagcaag ctcaaggacc 300  
 ttcagttctt tgttggcgag agcatgcatg atgatggcgg cgtggtgttc gctactaca 360  
 aagagggagc tgctgatcca actttcctgt acgttgacaa tgggctgaaa gaggtcaagt 420  
 gctaataccca ctgtatgcta 440

<210> 9631  
 <211> 359  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-G9

<400> 9631

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 gtccaaggcc gaatccggcg cctccaatac ctatccgcag caggctggcg ccatccgcaa 180  
 ggggtggccac atcgatcatca atgcccgtcc ctgcaagggtt gttgaagtca ccacctccat 240  
 gactgggaag catggtcacg caaagtgtca ctttgttgcc aatgagatct ttaatggaaa 300  
 gaggcttgac gatatcggtc cttcaagcta caactgtgac gtcccccatg tagactgcc 359

<210> 9632  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-H1

<400> 9632

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 atttacaaga acattctgta gtattagtaa gaggaggaac ggtaaggat ttaccgggtg 180  
 tgagatagcg cattattcga ggaaccctag atgctgtcgc agtaaacaat cgtcaacaat 240  
 ggcgttctaa atatggggtc aaaaagccaa aaaaataagt gatttttagcc cttataaaaa 300  
 gaaaacggat tcttgaacct ctttcacgct catgtcacgt ccatgtactg cagaaaaatg 360  
 aactgcaaaa tccgatccaa cttttcgcta tcgattagtt aacatgggtg ttaaactgat 420

<210> 9633  
<211> 431  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB30-002-Q1-E1-H11  
  
<400> 9633

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gtccgtctct tgctggccgc cggctctgga gctatgccgc aggacaggac gattcacagg 120  
aattatgttc tgctcgatct cgatacaatt gagatccgcc caaatggcaa ggaggaaatt 180  
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aacttgacaa ataaagctgt cagttatctt agtgaggaac aaacacaaga tgagatcatg 300  
gagattcttc atgggtgctg ttctcagaca ttctccttag aacagaagtg tcttgagatg 360  
gtggactcct atgcaactct gctctttgcc aaggtaactg aaatcgagcc agacgagttc 420  
tacaaacggt a 431

<210> 9634  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB30-002-Q1-E1-H12  
  
<400> 9634

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gtaaagcggg gatacattcc tgcaggcaaa acaatcatgc cacctttctt aactgctata 180  
cggatccact gttcgttttg gtccctcaca tcaaagtatc cactgccctc gagacaatag 240  
cgtatctctt catcagtatg caagtgtctt tcaaagaagt tcttcagctt ggcctcatag 300  
tttggaact tctctggaca tacgtcgcaa atgtccacat aagagtatcc cctggcctca 360  
cggattttct tgagattctc gtctttctcc cagtcatcag cattcaggtt ccagcttaca 420  
acaccaatt ctgaaagttt g 441

<210> 9635  
 <211> 348  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-H6

<400> 9635

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 gctgcctatg ttcgggtgca ccgacgccac acaagtgatt aacgaggtgg aggaagtcaa 180  
 gaaggagtac cctgacgcgt atgtccgcat catccgattc cacaacatgc gccaaagtga 240  
 atgcgtcagc ttcatcgctt tcaagccacc gggctgccat gaatccggca aggcctaaac 300  
 agctcacatc acgacatgcc atatataaag tggcaatgca gttttgtc 348

<210> 9636  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-A1

<400> 9636

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 ggaggtgggc tgggccagta ggttgcccggt ctgatgggct tctaggttaag actctggtcc 180  
 tttttgtttt ttctttttatt tatttctctgc tctgggtatt gaaatagaat aaatactatt 240  
 tcattttcaa aaactctgga aatattcaga ggcacatttg agaatattct caactgcccc 300  
 aaaatgcttc caagattatt tgagcacttt agaatatatta tagcacttaa aatgccccaa 360  
 ttcaaatact tatgggttgt tcaaaaat 388

<210> 9637  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
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<400> 9637

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aaagatgccc aatcagtgcg catgttcgtc gctgatgggtg gtgaattgct catggctcaa 180  
agctacgcca agaacatggg attgtatgga gagcgtgttg gtgctttaag catcgcttgt 240  
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tattcgaacc ctctcttca tgggtgcttct atcgtggcta ccatacttaa cgacagtgc 360  
atgttcgacg aatggactct ggagctgaag gccatggctg atangataat tagcatgagg 420  
gagca 425

<210> 9638

<211> 459

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-A8

<400> 9638

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actgaaccta actgaacttc agactaaaga agtacaattt acttggttca gactaaagaa 180  
gtacaattta cttggcttta catatgaaga agcagaaaaa gaaccagact aactgaacct 240  
aactgaactt aaacacacaa aaacagtatg atctgccaca ctctccagca ccttacaact 300  
gcatgaaaaa acacacaaaa acacctcaa atctattggc tgcttgaaca ataaggacac 360  
gagaaaataa ctaaaaaatc ctagagttga ctatagagtt gaagctatta aactttgctt 420  
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<210> 9639

<211> 429

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-001-Q1-E1-A9

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agggtggccg ccgcgataga agttgatgag atgcagagtt gcggaggagt ccgcggcgag 180  
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tggcaatcca aatttccttt gtcctttgtc catgagtttt ttctacgatg aacataacct 360  
tgctaatac cgtgttcaaa tttggcactt ttccaggttc atttacanta ttttaaggat 420  
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<210> 9640

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-B10

<400> 9640

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agggtgtctca gcaactccaag tacttctgtg agttctgtgg gaagtttgct gtgaagagga 180  
aagcagttgg aatttgggga tgcaaggact gtgggaagggt gaaggctggc ggtgcttaca 240  
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agacgatact ttggattcag ttctgttggc tgtttagtca aggattatct ttgtacttgg 420  
tgcgatgatg ttctgttatg 440

<210> 9641

<211> 330

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-001-Q1-E1-B11

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 ccctgtgccg tcgccttctc tcaagtgcc tttcctgggg tgggtcttct tgtagtcggg 180  
 cgccttgtag tccggcgtgt cgcggagccc cagcttcgac aggacgaggc agtacgaatc 240  
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 cccctttcga gagtgccttat cctttttgtg 330

<210> 9642  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
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 ccaaaaaaat tagggtagt tcatcctatc cgaaccaatc tgagcctttg cataaccttt 240  
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<210> 9643  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-C10

<400> 9643

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cgatgagagc tgtgaagggg gctccgtcag ctcttgccgc taacaagaga aaaagagagg 180  
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<211> 157  
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<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-C5

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agagatcaaa tcatgtgtta tgggcaagag atggtgg 157

<210> 9645  
<211> 445  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-C6

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gagctgccaa ggtgttgag cagctgagcg ggcagtcgcc agttttctcc aaggcgaggt 180  
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<210> 9646  
 <211> 373  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-001-Q1-E1-C9  
  
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 <212> DNA  
 <213> Triticum aestivum  
  
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 <223> Clone ID: LIB31-001-Q1-E1-D10  
  
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 atagggtgac ctgcgacggc ggctgggttg tctcctgatc tcctcgtacg cctcctcggt 240  
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<210> 9648

<211> 439  
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 <213> Triticum aestivum  
 <223> Clone ID: LIB31-001-Q1-E1-D11  
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 <213> Triticum aestivum  
 <223> Clone ID: LIB31-001-Q1-E1-D12  
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gaggagagca actaagaccg agaacactca ctagaatttc gtaaccagaa ccttcccctt 240
acgcatttta aatcttagga cgagatttct tgtagtagag gagaattctg acaccccgat 300
agttaagcta cagtaaacca ctgttaatga tgccagggtca tcaaaattaa aattttgcta 360
aaccttgctt gtttcaaatt agttcaaata caaattcaaa taacaaatca aattatagtt 420
tcataaaaca atgaattaca 440

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<210> 9650  
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 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-001-Q1-E1-D6

<400>       9650

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gcgctgccaa ggtgttgagg cagctgagcg ggcagtcgcc agttttctcc aaggcgaggt  180
aactgtcag  gtcttttggc attcgtcgta atgagaagat tgcttgctat gtgacgatca  240
ggggtgagaa ggcaatgcag cttctcgaga gtgggctgaa ggtgaaggag tacgagctcc  300
tgaggaggaa cttcagtgac actggttgct ttgggtttgg tattcaggag cacattgatc  360
ttggcatgaa gtatgacca tcaaccggca tctacggcat ggacttcttt gttgttctgg  420
agcgagctgg ataccgtgct tcccgccg                                     448
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<210>       9651

<211>       453

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-001-Q1-E1-D8

<400>       9651

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atcaatgctg aagaagaaag ttaccgcaaa agataggatt tcagggaggc ttctaaatgg  120
tcgtgctagg gacgcaacaa taagagaagc ttctaatact gaggatatga cctacaggga  180
agcattccca aatcagtggc agtgaaagca ccctgagtag gtctttcttc ataattaaca  240
gttttgtttt gctgtgctgt tgcattgctt aagtgttga agtacgcggg gactgaagc  300
tgcttcgaac ccgtgcatgg aaaatttcag aaaggaaagt cgtagaccat ttgtattggc  360
agtcggattg agaatccaaa tcagaacaac gcgacagtaa ataagcactc gattttgtga  420
acatgccaa gagtttgtcc ttgttgcccg acg                                     453
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<210>       9652

<211>       173

<212>       DNA

<213>       Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-E4

<400> 9652

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ttgctcgggtg agattttaca ttttttcata tcttagatca attgggggtcg tcatacctaa 120  
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<210> 9653

<211> 456

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

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<400> 9653

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gcgcgcgaga tagtgccgca taccggatcg ccctaaaacg acggccttta tatggaccaa 180  
actgtaaaac ctgccgtacc aaatattggt gtcgagtaga aaatactggt tgaaatatta 240  
taaatatgcy caacgcgaat aacaaaaaca attacacctg aggattcatc cgacaacgct 300  
caaaccaatg gaggatgagg ctataatgct cgtgggacgt cctgnccgga gtgcctgaag 360  
actacgttgg gccgaatagt atacgaaacg accgatctga acacgagggg tcttacgcat 420  
aggtcggctc gcccgattga cacagatgga aaacca 456

<210> 9654

<211> 367

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-E7

<400> 9654

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gcggtcgtg gagacgatag ttggcgtttt tgtggagggg tctccaaggt cttgtttgta 180  
atttttcctt ttatggggtc ctttctgcaa agtgtcagga catctgggtc ttctggagca 240



ttctggctgg gtctgtctgt gtgtgggtgt aactatgtat cctgattgtt ttattaaatg 300  
acagatggta ccttctcaaa agaagaatgg ttgccaacat tttccctgcc tgattagtca 360  
ctccctg 367

<210> 9655  
<211> 427  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-001-Q1-E1-F10  
<400> 9655

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ggggacaggc caacgccgtt cctggagatg atccaaagga tcgggtgcat ggagaaggac 120  
gagagagggg aagagtacca gaagggtggc tgcggcgggt ttggcaaagg caacttctcc 180  
gagctgttca agtccattga ggattatgag aaatcccttg aagccaagca atctgctgca 240  
gttcaggcat cataggatag aagctggaat tggagccgga gaagctgac cagtgccttt 300  
tatcatggtc tcatggagca aaagaaaca tgttcattgt aatatgagac gcacaattat 360  
atccgatgtt ataattggtg aagctgaaga cagatgtatc ctatgtatgt tgggtgtaat 420  
agatggt 427

<210> 9656  
<211> 348  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-001-Q1-E1-F6  
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atttcaaatt acctgaaagt taacagagag aggctgagca aggcgtacaa tctgctcggt 120  
gatgctttga aacaggtggg catcgagtgc ttcaagagca gcggagggtt ctactgctgg 180  
gcagacatga gcaagttcat ccggtcttac agcgagaaag gggaacgcag tctttgggac 240  
aggctgttgg aggaggcgaa tgtcaatgtc accccaggtt catcttgcca ttgcattgag 300  
cctggttggg ttaggtgctg tttcacaacg ttgaggagc aggatatt 348

<210> 9657  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-F7

<400> 9657

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 atatattgct ggaggagcca cgcagaactc tatcagggtt gcccaatgga tgcttcaaac 180  
 tcctggtgca acaagttaca tgggttgcac tggaaaggac aagtatggtg aggagatgaa 240  
 gagcgccgct aaagctgcag gagttactgc tcattactat gaggatgagg ctgctcctac 300  
 aggcacatgt gctgtctgtg ttgttggtgg cgaaaggcca ttgattgcaa acttatctgc 360  
 tgcgaactgc tacaaatctg agcatctaaa gaagccagag aactgggcac tacttgagaa 420  
 agcgaaatac atctacattg ct 442

<210> 9658  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-G10

<400> 9658

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 tacagctctg aagatggatt ggtggcaggt ggctgtggcg gcctcatacc cggcaggcgt 120  
 cctggttgag tagtgcgccg gaccggtggg tgccccatac tcggcatgcg tcctggttgg 180  
 gacctcaggt cttagatggt aggtttggct gcaaggatg tctggtatta ggtccagact 240  
 atcagcatcc cttcaacaac tggatatgaa tagcaacaga tgttgcttag acggtggatt 300  
 tagtcttact gttgtattac tttgtaaggt cttgtgtgaa ttattaataa agtggctgca 360  
 tgcacgtct aaatataaag gccaggggtc tttctccttt tct 403

<210> 9659  
 <211> 279

<212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
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<400> 9659

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 actatacacc attttattca gtccctgggtg ccaatcatat cacctgggct ggaagttttg 120  
 ttgtactttt tggctctgtag catcacgaga cttgtgtgtg tcgtgaacaa tgcaatgatg 180  
 catgttttgg ctcatgtgtg atttcagctt aatgcttatt atttggacta aaaaaaaaaa 240  
 aaaacaaacc aacagaaaaa aaantcccat caaggggac 279

<210> 9660  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-G12

<400> 9660

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 atcgtcaatt ccggacccat catcgctcg cagctgttgc tagtggatga ggtgatcagg 120  
 gcagggcgaa acatgaggaa accaacctaa acctagcgct cggcccttcc aggccgagaa 180  
 gactttttgt ttggtgttt ttctctgtgg ggtgccgagt acgtagcgag tagtgatgtg 240  
 gtgggggtgga atgcttgagt gcaagagatt gtacttgtaa caaccctcgt gacagtttgt 300  
 cgatgtgttt ctacgctggg gtttgtatgc agaataatctt cgtgttggat caagttgagc 360  
 agctatgtat tttttgtgtg ctgggtggtga ttggattctt gtttgtgttg agcaaagcct 420  
 gcct 424

<210> 9661  
 <211> 463  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-001-Q1-E1-G6

<400> 9661

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 gaacaatgcc attcttgccg aggacaagca cttgcccatg tacgatgagt tgtccagcaa 120  
 ggacaatggt gaatatattg ctggaggagc caccgagaac tctatcaggg ttgcccattg 180  
 gatgcttcaa actcctgggtg caacaagtta catggggttg attggaaagg acaagtatgg 240  
 tgaggagatg aagagcgccg ctaaagctgc aggagttact gctcattact atgaggatga 300  
 ggctgctcct acaggcacat gtgctgtctg tgttggtggg ggcgaaaggc cattgattgc 360  
 aaacttatct gctgcgaact gctacaaatc tgagcatcta aagagggcag agaactgggc 420  
 actagttgag aaagcganat acatctacat tggctggctt ttt 463

<210> 9662  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-G9

<400> 9662

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 aagagctcag gaaactcacc cagctgcgca agctcggagt gtctggcatc aacaggcata 120  
 acagcaagga cttcttctct gcaacctcag gccttggtgca tctggaatcc ttgctgggtgc 180  
 ggctgggcaa ggacagccaa ggctgcctgg acgaaatcac cctgccttgg gagaacctgc 240  
 ggagcctcac actccacggg cttcaagaca agctgccacc atcaaagaac ctcaggaagc 300  
 tcatgaagct ggatctggag atggacgcct taaaggaaga cgacatcaag ttcctagcca 360  
 acctaccgga gctatgcac ctcgctctcc gggtcggaca gcttcaggat ggtaagctcc 420  
 attttcacgc cgagatgtac gggg 444

<210> 9663  
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 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-H6

<400> 9663

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tttattccct aactatacta tattattatt atttatccctc ttttttttct ttttatcaat 120  
 gggtttaaga ttcattagct ttctcattct actctttcac aaaggaatgc gaagagaact 180  
 caatggatct tatcctattc attgaataga tttctttttt attagagtat cggcaagaaa 240  
 tcttggttat tcaactctatt ttttaagtttt atttaagtaa accatgcaca atgcatagga 300  
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 attgacatag atacaaatac tctactagga tgatgcacaa g 401

<210> 9664  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-H7

<400> 9664

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 caaactcttc tctacctga cctcggccac gcgcaactcc tctcccgac gctcctcgat 180  
 ctccgctgcc tcttgcatct ccagctctcg ctcgatgac tcatgaggaa gtaggtgctc 240  
 catggccacc ggtgcctttt tggacgtggg ttgcatgctg gatttcgagg tggcctggaa 300  
 tatcttggcg tgtgcatcct cgatcttggc gggatgccct cgacactggc caaggcaaca 360  
 tcggcgccac ggacgacagc tcgagcgctg tcggcgtttg catccatcgt cgcagc 416

<210> 9665  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-H9

<400> 9665

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 aagtgaagga ggcaaaaaga aacttgctca accgtttcta tgcgcatgta ggaagcaag 180  
 agaagaaaca gctgagcgcg atgctggacg aggatccgc gttgatggag aagagggatt 240

ccctcgtgaa gaagctggag ctgtacaagt ccgcgaggaa cgagatcgac tcggttgcat 300  
 ggaaatgata tgatctgata cgatagagcg tttgctggctg gaacagatag aacatgtgta 360  
 gtagagatgc tccattcgtt ttgcatatgc tttgtacacg ggctttgctg ccgagtgttg 420  
 ttttgtggct aacaccgaga catgg 445

<210> 9666  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-A10

<400> 9666

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 gtggtggtgg tggttttggc ggaggtggac ttggcggagg tggactcggg ggtggtggtg 180  
 gttttggcgg aggtggactc ggtggtggtg gtggttttgg cggaggtgga ctggtggtg 240  
 cttgatgtcg atgatgattc cgtgtatgcg gccgttgtgc catgcctttc atgttttaac 300  
 ttttatgatg tttcatgtct tgcactactt ttatgttcgt gactttcgct agtgatgata 360  
 tttagatgat gaacttgact atgttttaaat gatgatgatg aactgtcata tttcatatta 420  
 ttctgctttg aaatgct 437

<210> 9667  
 <211> 459  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
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<400> 9667

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 ggaaaatccc cattggctcg ggctgttaac ggggttatcg aaacccgacc cgatagctta 180  
 acggcgttcc gttacggtgg atgccgcgtg tcagtcaccc ttgacgaaag cacttctgtg 240

acgcgcgatt tatcgtcatg gaagtggaca cttccgtgat gataattttg gtaatgtcat 300  
 ggaacacttc tacgacagca caggtatgac tatcttgatt ctgtcataaa tttgtcatgg 360  
 aggtacatgc atgacaaaaa aatgcgacct actgtgacaa acacgtatca tcacggaagt 420  
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<210> 9668

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-A8

<400> 9668

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 gcctaggaga gttcacttac gacctcgaga agagcaacgc ccagaccttc cagctagaca 180  
 gaaccaccgc cgacgcatct gtggtcaaca ttgtccggct cgacttctcc tcgaaccatg 240  
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 ttcggcaccg cggcacgtg aggcctgac tagttagtac ctgtgtgcct gggaccatac 360  
 ggtcttccct ctttagcctt gattgaagac ttgaagcccc tgcgagacgg taggttcaag 420  
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<210> 9669

<211> 439

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-A9

<400> 9669

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 agtttttcat agtttagatc gagtttggtc ttcataccta tagtccacga aaaaagccaa 180  
 aaaaattagg gttagttcat cctatccgaa ccaatctgag cctttgcata atcttttgtg 240  
 tatttgctt gttcaatttg cggttgcac gtcgtgtcca gttgctgggc ttagcgtcta 300

gtcctttaga gtttcgagtt ctgttcacag gttgtcacgt cgccgctgcc atatatcacc 360  
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 ccatatnaca acaacacat 439

<210> 9670  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-002-Q1-E1-B12  
 <400> 9670

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 aaatccagcc cccccccctt ttagaaaaaa aacaaaaacc ctagccccctg aacagctgac 180  
 gcgtggatgc ctattggcac tagtagaaaa gggggcaaag gtccaggccg ggtagccca 240  
 ttagtcccgg ttcagtccag aaccgggacc aatggggcat tggacccggg tcatgagccc 300  
 agggggggcgg ccggggccacg tggggccattg gtcccggttc gtctggacct tttgggtccc 360  
 gttggtggga cgaaccagga ccaatgggtc tcgctcctgg cccaccacca ttggtccc 418

<210> 9671  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-002-Q1-E1-B3  
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 ccaaggaata atagttcaaa cagcaacgtg acatcagcag gttcctccag cttaacctct 180  
 tcagagaatg gacctgaata ttcaagcccc gtagcacaat gatgagtgga tccctagctt 240  
 ttagctgaaa gctctactag ctgtagctgc aacggtttga gcctaggaga ttgaagtgcc 300  
 ttgcggtttt tgtacgctcg cttgcccttc ccaacctgat gtatgaaaat tatgtggaag 360  
 agtccacagc tgttatataa ggaattttgg ggctgggaat cgtttgtaag aaacattgta 420



gaacaacttc cgtttcac

438

<210> 9672  
<211> 444  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-B8

<400> 9672

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tttccaagtc actgtacgag gctcatggga ttgaaaacct ggtgctacca actagagatt 180  
acctttatgc gccatcattt gacaaccttt gcaaggctgc tgacttcac cagagaaatg 240  
cttcatgtgg taagctgact tatgttcact gcaaagctgg acggggacgt agcaccaccg 300  
ttgttctttg ctacttggtg caatacaaac aaatgacacc tgctggagct tttgaacatg 360  
ttcggtcatg caggccaagg gtgttattgg cttccgcaca atggaaagct gtccaggaat 420  
tctaccagct tagagtgaag aaaa 444

<210> 9673  
<211> 408  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
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<400> 9673

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accaagaccc agtctaccat ctgctactga actcccatag caagaagacc tgaaaactca 180  
ttgaagggat atgttcttgg tacacaataa tgtcccctct gttcataaag gtgccacaat 240  
aaagggtata ccagagtagc aattagagaa gtttttctt tgtggaatgg aatgatttct 300  
taacgaagtt gaagctcctt gttatggtgt caaagggtgt tttctaattg tatatcaaat 360  
ttaattgctt ggcagatgat agacaacaga tttttctttt ttacgaat 408

<210> 9674  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-C12

<400> 9674

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 agctttctct caattggtgc taccccaact ctatctcgta tatcatcatt ccggactcga 180  
 tccttctctg tgtggccact gtaaaacaaa agatactaca gtgtaaaaat actttgagaa 240  
 ttacactata aaatcttttg ataatcacac tgtaaaactt tgagagaact cactaaggaa 300  
 ttagagtgc aaatcttttg tgaattacca gtgagatata gtgggggaaac tatccgtgta 360  
 gtaaagaaaa attaccagct cattacggat atctctgtgg tatgatgagt tctctccat 419

<210> 9675  
 <211> 363  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-C5

<400> 9675

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 acacgtcaaa taacaaggag ctgatccacc atcttttcaa acacgtcgag gctaacccca 180  
 gcgatcccct ctggcgccac actctcgga gagaaagact caataattgt gtgatatatg 240  
 gaatgccaac gctgatggcc acttggttgt atttgactg ggagggttg aaaatatgtt 300  
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<210> 9676  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-002-Q1-E1-C7

<400> 9676

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atttgagtaa aacttaaatg tctagatgca tataagcttg tgagttaatt aatgctaact 180  
tgatggtcca aactaaattc tgcaaatatg accatgacag aaagataaat ggaggtttag 240  
aggcagagtg gatgcctgca ccaactttat aggttgaact acgttttgct agatgactca 300  
natttcagaa cacgagcatt aatttttggg aatgcagtta acaacagaat caagtcaaga 360  
tgaaaaatgg agaactattc aatattgagt ttaattccct tcttgcagag caacagagat 420  
gagtgaagag attattaaat attga 445

<210> 9677

<211> 224

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-D10

<400> 9677

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ccatttgaac actgoggaca gcctcctcca acttcttcat gtcagtctca tcgtcccatg 180  
gcttgatgtc catgaggacg gaggatttgc cactttcttt ctte 224

<210> 9678

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-D11

<400> 9678

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gggagttggg gagtagtcgc atagaagaaa acccgcatgc agcaacctgg ggagctggaa 180

cagtacaaga agttatacct caggtgggcg agatgtcact taggcgggtg ggcgggatct 240  
 tcccacagaa caagggcgca gaggaccttt gtccgcgcca gcgccggctc cgagtggacg 300  
 gtgcacaacg gcttctcca tcgtcgatgg taacaacgtc aacgctgcac ctctcacct 360  
 cccgcagcgg acggaattcg gccggatctg tgaccaccga tgaggagaga gatagagtgg 420  
 aactgtcat cttgttttg 439

<210> 9679  
 <211> 461  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-D8

<400> 9679

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 attggccgta ccaaagtgtg cggttgcaac atgtcgtgaa atgaacatat gtatatatat 180  
 aaagcaatta aagcaataat aagcaagagc tatgtattgt ttattcaaaa aggtactgca 240  
 atggaagcag aacgatacaa atagtgcggt aagcaaggga tgagactatc taacatgtcc 300  
 ccctctaggg gtaagctgcg ggatggatg taaaacagggt ataatgctca taacagagac 360  
 caccgagca cttgacgtgg ccttccgctt ccctggctgt tgtatcgtga gttcggcgat 420  
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<210> 9680  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-D9

<400> 9680

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 tgccatgcat aagtagctag gagtgaataa tgatttatct tagatatcaa catagcgta 180  
 aaatgattgt gatctagtat gatgatatgg catcctctc tgaatgttcg agtggcttga 240

cttggcacat gttcacgcat atagttgaat caaaaccaac atagcctcta tgatatttat 300  
 gttcatgggtg ttcatatcct actcatgcta gtgtccaatg ttacttatgc ataatgcatg 360  
 gttatgatca ttgttgctct ctagttggcc gcttctcaat cttaattgct aaccttcgcc 420  
 tgt 423

<210> 9681  
 <211> 334  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-002-Q1-E1-E1

<400> 9681

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 agattcccaa caacttcagg ttggccacgg ggatcagcaa attcactagc gagtccaagc 180  
 ctgagatatg gctagaaggt taccgaatag cagtctagat cgacggcggc aacgacaatg 240  
 tggccatgaa gcatgtcneg ctgatgctag agggatccgc tcgagcttgg ctactcggc 300  
 tcccgcaggg cagcatattt tggtgggatg acct 334

<210> 9682  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-002-Q1-E1-E10

<400> 9682

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 acagtttttc gtagttttaga tcgagtctgt tcttcatacc tacagtccac gaaaaagcca 180  
 cacaaaaaaa ttaggggttag ttcatcatat ccgaaccaat ctgagccttt gcataatctt 240  
 tttaggggtt tgctttgttg aatttgcggt tgcacgctcg gtctagttgc tggctttaga 300  
 gtctagtctt ttagagtttc gagttctggt cataagttgt cacgccgcgc ccgcaccatc 360

atcatcgccc ctgccatcta ccaccaccgc ttatccgcc a cgcctccgaa tccgtatcca 420  
tnnatacaca ccgattcata tc 442

<210> 9683  
<211> 198  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-E11

<400> 9683

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aggagtgtccc aacggaaggc cacactttga acagctctaa aaggagccgg agactgtaca 180  
aaagctttta aagcgcac 198

<210> 9684  
<211> 441  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-E4

<400> 9684

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gccagctact gcgacgggga tcgtgacggc atcgccgatg ggcgacatca ccggcgatga 120  
caacagatgc ggcttcttca tctcatcatc gacgcatgga tattcttgta ttgatttcca 180  
tgcattcatt gtaattgata tctcacgagc tagttcaatg aaacagtata atccatccat 240  
gcatgccatg gcgaccaaga tggaggcatg cgcattgcta gcgtttccat catcaacaca 300  
catcggcgct cacacgcgtg gcaatacaca gccgcgggtc ttgctgatgt gcagaataca 360  
catgcatgcg tgcgtacctg acatgcatgc ctaacatatt gttttatttt acatgatacc 420  
taacatgttg ttggttgatga c 441

<210> 9685  
<211> 442  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-E7

<400> 9685

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atacgaaact ctttacatca atgattagt cctgtattaa cgctggagat ccgaaacaag 180  
cagagaaatt ggtaaagaaa atggatgagc tttccatgaa acccagcagg gaaatataca 240  
tggatgtgat gcgggcatat gctgagcgta acttagtaga tggagctcaa tcggtgaaaa 300  
caaaaatgtc atttgctgga atcgagcccc cgttggagt cttcacattg cttatagaag 360  
caaatggacg ggctggcaac cctgattatg catatgaagc gtttgaacag atgaagaaga 420  
atgggcatga accagatgac cg 442

<210> 9686

<211> 453

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-E8

<400> 9686

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tgaatatctg gattaaaggg gattcaacta tttaaactgg agatcacgac atcgataata 180  
tcataacgca catctggtgt atcaaacagt gcataatccat ttgaatttgg gcacatgtgc 240  
taatgttata tagtttatca atattggtga tccatagatt cttcaattac atacaatgca 300  
tggtttatat gcagttaatg tctacactgg attacactat atgttgcattg tgtgaaacac 360  
attagacatg tctgagaagt aaaaaacccg catgatacac acattaattg gcgacactta 420  
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<210> 9687

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-F1

<400> 9687

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gcaagtctgg tggcatacac tcagtgcagt gtatgctttg aagaaagata taggcacctg 180  
gtggatggga agtgcaaatg agatatgact tggcaactca acaagacagt tttggggagg 240  
attataacat tacagagaga tgctgagtta gtgcactcat agtgggaagtg tttgattatg 300  
acattagcga catggtagtt gctgagttag tgttgtcaaa ttgtgaagtg tcaagagggtg 360  
tggggaagtc atttcttcaa gcagacaagg acaaaattca agaggctgat gaaacagcac 420  
atgatgatca catacaggaa gcac 444

<210> 9688

<211> 435

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-F10

<400> 9688

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ctatccaatg taaagcgggtg atacattcct gcaggcaaaa caatcatgcc acctttctta 180  
actgctatac ggatccactg ttcgttttgg tccctcacat caaagtatcc actgccctcg 240  
agacaatagc gtatctcttc atcagtatgc aagtgtcttt caaagaagtt cttcagcttg 300  
gcctcatagt ttggcaactt ctctggacat acgtcgcaaa tgtccacata agagtatccc 360  
ctggcctcac ggattttctt gagattctcg tctttctcnc agtcattcagc attcagggtt 420  
cagettacaa cacca 435

<210> 9689

<211> 442

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-F12



<400> 9689

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tcttgctcat gagcgtgtgc cgtcagacct gaagaagagc attatgcagg ctagaacgga 180  
caagaagctc acacaggcac agcttgacac gctgatcaat gagaagccac aagtcattcca 240  
ggagtacgag tcaggcaagg ctatcccaaa ccaacagatc atcggcatgc tggaaagggc 300  
tcttggcaca aagctgagag gcaagaagtg aagccgctg catctgacag gagtcgaggc 360  
tttcaagaga gcttggctgg gcaangttta cgctaaataa agcttgtcta ctaaattcatg 420  
cgacttaaga naaccctgga gt 442

<210> 9690

<211> 457

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-F6

<400> 9690

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ctatactttc caatagaatg acgcaatttt gatatttccc cataaaaagg ttaaattttg 180  
accaagaatt ctgatcatga ttctacttc tttttgctcc tctttttttt ttttttgagg 240  
tgctgttgta agaggatcta tttgtgctat ataaaggaaa aaaaaggag catgaggacg 300  
aactcaccat catgtcgagg gaggatttgc cgaggccgtt ctggcagccg tttgcctggg 360  
aagagagctg atcgtctcct cttcaaactg atatataggt gctgggggtgc cgccagcaat 420  
ggaaactcgg agactgaatc cgaaagaggg cctgttt 457

<210> 9691

<211> 457

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-F8

<400> 9691

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tgttacctag ctccgtcttt ggcttggcac ttgaatctgc tggctaata caacctcagcca 180  
ggcgcttatg tttagctagc tagcatttct tctttgaaat ggggttctaa aagatgggta 240  
ggctctggct aggggcctat ggttacgtgt ccttttttgc gggtcacatc ggccggaagc 300  
atgggtatgtg tagctagcct gcttctgctt gtaacacatt tcagataatt gtgctgagc 360  
tgtacagaat aaagcacgac aaatatatat acatatgtgc atacaagtgg gtgatggata 420  
cgtgtcgatc catgcgtatc ggtcctaata agacgcg 457

<210> 9692

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-F9

<400> 9692

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aaagggccaa atttttccag ccagagggag atcatcttac cctacttgct gtatatgagg 180  
cttggaagc aaagaacttt tcagggccct ggtgctttga gaactttgtt cagtcaagat 240  
cgctaaggag agcacaagat gtcagaaagc agcttctaac tatcatggat agatataagt 300  
tggtatgtgt cgctgctggg aagaacttca tgaaaataag gaaagcaatc actgccggct 360  
tctttttcca tgctgccagg aaagatccca ggaaggctac agaacttgg tggagaaaca 420  
gcagtgtaca ttcaccc 437

<210> 9693

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-G10

<400> 9693

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 tgctacctat tgaagcagat atcttgctgg ttacagatag ctcttcaa at gaggattcag 180  
 aggcagatga ccagtcctat tatccccctg aggtgtatgc tcaaacttgg cagggttata 240  
 ttactcatat catgcatatg ttgtattgca atgcttagtt ttttcatcat atacacgata 300  
 ttgaatacca tctccttagt agacacatca tatatgcgat tgcctcttct tcaattcctt 360  
 agtatataaa tcatatattt gaatcatatc atgtagcgac cagacctcaa acagtctgat 420  
 ctctgtgctc cggtgtcat 439

<210> 9694  
 <211> 300  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-002-Q1-E1-G11  
 <400> 9694

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 aaaaaaaaaa aaaaaaaaaa aaaaaagaaa aaaaaaaaaa aaacaaaaa aaaaaaaaaa 180  
 aaaaaaatta aaaaaaata aaaaaaaaaa aaaaaaaaag gggccgcca aaaggttcaa 240  
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<210> 9695  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-002-Q1-E1-G5  
 <400> 9695

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 gtgctatttg atgtacttct ttgccagatt tttgaagaat tgccagtgc ttgtgtaacg 180  
 gggctgagct ttatcttggt atcctctatc ctattctgga aaaaaagtat aacaatcaga 240  
 agaaaagaac aacatgaaca tctgataaca aaaagtactg agagaaatac agaattgtgtg 300

atctcaaagc accttaatgt aagtaaaacg atctgctgta actttcttct tcaacgagtc 360  
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actatcttga ctcttg 436

<210> 9696  
<211> 456  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-G6

<400> 9696

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gttgaatcaa aaccaacata gcctctatga tatttatggt catggtgttc atatcctact 180  
tatgctagta cccaatgtta gttatgcata atgcatgttc atgaccattt tccctctcta 240  
gctggccgct tctcagtcta attgctagcc ttggcttgta caaagtggga tttctgcttg 300  
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<210> 9697  
<211> 445  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-G8

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cagagatagc ggggctgttt tgcttgccgt tcaaaatcgt ggcagttgat ctgtttgctc 180  
tacgctgatg ggagtatttg gcaatgttaa aagtaactgt cgttctgtac tgtttaatta 240  
gcagtacagc ggtacttcct cacagaaaaa aggacgtgca taccaccagc aatgttcaac 300

tcctttggac cgtcttttagc aaaaccaatt acttttcagat tttcacagtg taaaacgcac 360  
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<210> 9698  
<211> 379  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-G9

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gatcggcgaa agagatggca ttttctctg accacactca cccttgacat tctcccattg 180  
aaagatctgc ggtttacttc agctctggca ccattgaggg tgtgcgctaa ttttctttgg 240  
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ggtgtgatgc tttgcttca 379

<210> 9699  
<211> 419  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-H10

<400> 9699

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ttttattcag agatagcgcg gctgttttgc ctgcggttca aaatcgtggc agttgatctg 180  
tttgctctac gctgatggga gtatttggca atgttaaaag taactgtcgt tctgtactgt 240  
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gttcaactcc tttggaccgt ctttagcaaa accaattact ttcagatatt cacagtgtaa 360  
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<210> 9700  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-002-Q1-E1-H12

<400> 9700

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catcattggg gttgagcaga tacgtcatat ctgtgtcgct gaccgtact acatgcacga  180
gagcttcttg ggagtctgcg cagagcaacg tgaatacgtg agggattaca tcgtcagttt  240
catgctcgcc aataaggaca aggaggcgat tctcgtgect tatcatccca tgtaagtcac  300
ccacgtgct atccttcctt cgatttcaat aattcatttg cacggcggag gctaattaat  360
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at                                                                    422
  
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<210> 9701  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
  
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<400> 9701

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catgcagaaa ccaccctcat attttagtta acaaccagca gtacatgtag aaaataatgt  360
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 gcctatttga ttagaatttg ctaaaatact ctatgtgctt cacttatatc ttttgagctt 180  
 gatagttttt gctctagtgc ttcacttata tcttttagag cacgggtggg tcttaatttt 240  
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<223> Clone ID: LIB31-004-Q1-E1-A1

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<223> Clone ID: LIB31-004-Q1-E1-B8

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gcgcggtggc tcaacggctg ggcgtctaca ccgccataga ctacgcggac atcctcgact 180  
ttctggtgca gaggtggaac gtcgccaacc tctctgggct gtctggggaa gggaggcggg 240  
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gcagggcgaa gcagttaccg gttgttcctt tcagctggat ccatggtcgg caagtgaac 360  
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agcaactggt gac 433

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<223> Clone ID: LIB31-004-Q1-E1-D7

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cgcaatgagc aagaagtcga gggctaggaa aaggacatga gctgtgcttc ttgccagtgc 180  
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ggtgaatttg actaactaaa aatgtgatat atctcatcaa aagcagatca ttggatacat 300  
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<212> DNA  
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<223> Clone ID: LIB31-004-Q1-E1-E8

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cgggtgtgtt gtctaacggc aatcttatcg aacacggtga tcttgagggt ggaaagcatt 180  
acgcacgatg ggaggatcca ttcaagaaat catgctacct gtttgcgcca gttgccggtc 240



agttggactg cccgggacgac tcaattgtta catgttcttg cgcgaaagt acacttccaa 300  
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<223> Clone ID: LIB31-005-Q1-E1-A4

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 cataaaaaatc tgtgtgcttc cgtgtcacgt ttatctcgtt attctaagat gggccgtaca 240  
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<223> Clone ID: LIB31-005-Q1-E1-A6

<400> 9708

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 gcttggtgaa gcagttccgt ggtgcggttc cgcataatcaa tgaaatgagg aggtcggcat 180  
 gcatagaggg tgcgcagatg gctcttgccc gtgtcaagac atactgggcg gagatgaagg 240  
 ccaccgatgt tggatcccaa gattcggacg gaagccgagt acgtgtcgag cactattttc 300  
 aggaagttct gcagggcgct cgtttaatag agacgcagtg ctcgaaggat attatgttcg 360  
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 <213> Triticum aestivum  
  
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 ggggggtgaa taggcgattt ttatgaaagt cttcaaaaca tgggagtttt gaagacaaac 180  
 gatagaaatg aacctataac catgcagcgg aaggtagact accctagaca agccatgatc 240  
 aagtattcaa tgaagtgaaa gcacaaagac taacatcagc taggcagtac ggatcaggat 300  
 ggaagataat atgaaaccaa tctgaacaaa cagtcacaca gtgaagacaa atggacaatg 360  
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 agacaatatc tgctgtctcg catgaagaat ctgaaggttg caaatgtcca caacgtttca 240  
 agggcgatgg tgtaaaaagc tgtgaagata ttgatgaatg caaagcgaaa tctgcctgtc 300  
 agtgcaatgg ctgcagttgt gagaatacat ggggaagcta tgaatgcagc tgtggtggta 360  
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<223> Clone ID: LIB31-005-Q1-E1-C4

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 tgcgctcaca gcctccccca gactgtatct tgagcccaat gggctcttcca ttacgcccag 300  
 gggaagagct ctgcaagttc tactctcgct atggcatctg caagtttggc gtaaaactgca 360  
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<210> 9712  
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 <213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-C7

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 caagatcctc aaggatctca agaaggaatt ctgctgcaat ggcacagtag tccaggatcc 240  
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 agtccaggct gggattgcga agaaggagct catcaagatc cacggcttct aagccgaagc 360  
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<210> 9713  
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<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-005-Q1-E1-D5  
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 tgggggtaac tgtcctcgtg ccttactttc ccgagtaagt cctccctca accggcccgt 180  
 aacatatgaa ttcttacatt tcgatcgttt ttcttttaac attccgtgtt ttctgcagtg 240  
 acacacgttg cacgctcatc ctctaagcc ccaaatttc catggccacg tatttcgacg 300  
 cggaccgtca gtcgaacgta gactacacaa atgtcaagaa agttcttgat gatgttctcc 360  
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<210> 9714  
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 tcactacagc ggctcctctc ctctgtcgtt cttgccggcc aagccaagct ggacatggat 180  
 gtgtgggtgt gcatgctcac tgtgaagtac gttctaggcg acctctttca gttcgatgtg 240  
 tgtgtcact gtgtgggtcg ccatctctct atcctgcaa gctacaccag cacttgttgt 300  
 ttctctccc tgctgcaatc agtggttgta gggacggaca agatggaggc atggagctgg 360  
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 <223> Clone ID: LIB31-005-Q1-E1-F6

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tctgcacaat aaacaacacc atggcagttc tgctgaaaac aacgtcagtc cagggttagtt 180  
tcattcaaat catgcaagtt agagtccaaa acaagggcaa aaagtgtttg gaaaagtcga 240  
tacgttggag acgtatcaac tcccccaagc ttaaacccttt gcttgcctc aagcaattca 300  
gttgataaac tgaaaatgat aaagaaaaac ttctacaaac tctatttgct cttgttggtg 360  
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<210> 9716

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-F7

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ctacgaagat ctttatcggt gaaaccgcat aacaacatac gttgttcctt ttgtcatcgg 180  
tatgttactt tccccggatt cgatcgtcgg tatctcaata cctagttcaa tctcgttacc 240  
ggcaagtctc ttactcgtt ccataatata tcatcccgca actaactcat tagttgcaat 300  
gcttgcaagg cttatagtga tgtgcattac tgagtgggcc cagagatacc tctccgacaa 360  
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tgtagaacac ctttataat 439

<210> 9717

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-G5

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 cttcccgctcg gttatcactc ggcggagcag ataatgtgtc taaagtctca ccaaattggct 120  
 tattaacaag gagatctcca tctttccatt caagatcctc tctttcttct agcagcagct 180  
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 aagatcgtga agcgaatgat ggttggaag ggactgtgga tgagggaact aatgaaagtc 360  
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<210> 9718

<211> 434

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-G6

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 atactgtcga tgcattttt gtggtctttc ttgtagaaag cagcctatag atagaagaca 180  
 tccacgtggg tagtatttca gctctctcgg cattatgaaa tgggtgtaca aatatagcat 240  
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 agaatctcgt atcaattaga gattttccat atccgaggaa ataaacatat agaggagagt 360  
 gaccttttac tatgaggaag cagacagcag tatgttcatg ctattcggtta ctaacattaa 420  
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<210> 9719

<211> 458

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-G7

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 tgataacgtc gtcgcaccaa ggaaagctat ctaagctacc ggaatggatg cattcgtcca 240  
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<210> 9720  
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 <223> Clone ID: LIB31-005-Q1-E1-G8  
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 tgctgttgca acgaacagca gcttcccagg tccaccgtgt gagagtttagc accagatgggt 180  
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 aataaagtgg tgaggatgta gtgtagtgtg gccccggcct cacttgagtt ggtaggttaag 300  
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 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
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<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-A11

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ccccgtcag gaaatcatgt gggtcgggtg gccgctctat cggtcgggat gacttgcttc 420  
aggatatcca ctacatgact ttc 443

<210> 9723  
<211> 428  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-A5

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agagtgtgta ctgaaaccaa gtgtggtgtt ggtttctgtg aatagacatg acaagagaag 300  
atcgcttgga gcagtctgca cgttgttgtc tcattcaccc atgtatgtat atacaacagt 360  
tgttgctgga tataattgta tctatagtcc tcatactcgc cggtgacgtc gaactcattc 420  
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<210> 9724

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-A8

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cccgtgctat gttacttggt ctttctaaca tcggtggcca agtacagccg tagctttagg 180  
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tactcttata agccacgctg gaggtgctgc cgtttttttg ttccacgtgc atgataacaa 420  
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<210> 9725

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-A9

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ttaggttagc gaatgctgat cgatcatgagg ggaacattct agtgtccaag gaagaagggtg 360  
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<211> 445  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
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aaatcaagtg atcctttttc ctacatattc acaatgacct ctaccgtgtt gtaaatcaat 360  
atttcatttg tccanacctt ttanatttga ccaactctaa ttcaaatttg gatctccata 420  
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<210> 9727  
<211> 442  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-007-Q1-E1-B2  
  
<400> 9727

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ttcaagtacg cctgggtgct tgacaagctg aaggccgagc gcgagagggg tatcaccatt 180  
gatattgccc tgtggaagtt tgagaccacc aagtactact gcaccgtcat tgatgcccct 240  
ggtcaccgtg acttcatcaa gaacatgatc accggtacct cccaggctga ctgtgctgtg 300  
ctcatcatcg actccaccac tgggtggtttt gaggtggta tctcgaagga cggccagacc 360

cgtgagcacg ccctccttgc tttcactctt ggagtgaagc agatgatctg ctgctgcaac 420  
aagatggatg ccaccactcc ca 442

<210> 9728  
<211> 437  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB31-007-Q1-E1-B4  
  
<400> 9728

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ctggaggagc cacgcagaac tctatcaggg ttgcccaatg gatgcttcaa actcctgggtg 180  
caacaagtta catggggttg attggaaagg acaagtatgg tgaggagatg aagagtgccg 240  
ctaaagctgc aggagtcact gtcactact atgaggatga ggctgctcct acaggcacat 300  
gtgctgtctg tgttgttggt ggtgaaaggt cattgattgc aaacttatct gcagcgaact 360  
gctacaaatc tgagcatcta aagaagccag agaactgggc actagttgag aaagcanaat 420  
acatctacat tgctggc 437

<210> 9729  
<211> 444  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-007-Q1-E1-B6  
  
<400> 9729

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tcacgcttgt cattcttctt aagcgggtgt caatgactct ctcccatagc ttcattgtat 120  
ggctcatcag cttaattcca cggttaattag tacaactctg aacatcccc ttgttcttga 180  
agattggtac taatatactc cgtctccatt cttctggcat cttgtttgcc cgaaaaatga 240  
gattgacaag cctgggttagc catactatcg ctatgtcccc gagaccttcc cacacctcaa 300  
tggggataca atccgggccc atcgcttgc ctcccttcat ccttttttaa gctccttga 360

cctcagactc ctggattcga cgcacaaaac gcatgctggt ctcatcaaaa gagtcgtcca 420  
gttcaatggg agagctttca ttct 444

<210> 9730  
<211> 445  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-B7

<400> 9730

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tataactttc cacctgtaat catatgtatt atgtattgcg gatggaccag ctgattcaat 180  
ggttgacaga aaggactcaa cctgcaaaca agaccattgt tcccaagggtg gtgaaataca 240  
ataccctggg ccacatcttc cagaggatat ttggtgtcat atatattccc tactgccaat 300  
gcgagattgt tttccgttac tacaatgcca aagtctgtaa cattgatagc tggtttcagg 360  
ctgctgttac accggggatt gaagaactca ctatagaact atcttcaaag tcaggaagat 420  
attacaactt tccgtgggtca ctttt 445

<210> 9731  
<211> 429  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
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<400> 9731

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tgaagtactt ctgggacacc ttgctggacg ccgaccttga gagcgacgcg ttgggctggc 180  
agtacatctc cgggtctctg cctgatggcc gtgagctcga ccgcattgac aaccgcagc 240  
ttgaaggcta caagtccgac ccatacgggg agtacgtccg gcgatggctg ccggagctgg 300  
cgaggctacc aacggaatgg atacaccacc cctgggatgc acccgagtct gtgctgcagg 360  
ctgcaggaat tgagctaggt tccaattacc ctctcnccat tgttgagcta gatgaagcca 420

aatccagat

429

<210> 9732

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-B9

<400> 9732

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tataaaagtt tattaagagt acaaagcacc tcaaacacaa ttaaaaaatat gtcgaggtct 180  
ctaaacaacc aaacgaccat taccgcccgc ggaatggtct gccgacgcgt ctgtgtcgcc 240  
actcgtctac cgaagccggc ttgacctgt cgatgacagc cggaaagtct tcgtgcacgt 300  
gttcgtaagg acctgcgcc tggagccgca ggcattgccg ttgaaccac aaatagattt 360  
gaatcagctg acaccaaata tcaccgttgt gcaagcaca tgagaaatcc taacctcacc 420  
attccaagaa gacaacatga atccaca 447

<210> 9733

<211> 454

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-C1

<400> 9733

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gcatagggca gttaacagga cacctgggtc gaagacggcc tggatgcgcc tccagttggt 180  
tcgccgtaag ggccagtact catcgaggag gcgacccttg gcatgcatac aattgtgctt 240  
cttgccgctc gacattctgg cattgatgct cactgtgctt gtgcacttgg ccttaaacac 300  
acttgctcca tgtgtcactc cagacatgac agttagcatt atcttgcacg ctgacctcaa 360  
agtacttgta ggtagagtcc tcattcacc actaggagtt gcgcacataa ataccactca 420  
acctgagctc agctctctcc tcaacagtaa acct 454

<210> 9734  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-007-Q1-E1-C10  
  
 <400> 9734

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caccggcctg gtgtgtggaa agtgcattgt gaagccgctt ctctagatcg tgctcgatga 180
agtattgttg tcggcagctc agctaattcg acagggcgat gacattggtg gcattgtagtc 240
aaatgggtgt gtagatgcag atgcatttgc agatcggtct gtgaggtcgt tcatcttgat 300
gtatatggca gttggctatc gtagcccatc tggtagtgcg taccggtcgt gtagtcattcg 360
tcgattgcaca gattccaagt catgttgcatt gtatcacctc gtaggagatt gattcattgtg 420
ga 422
  
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<210> 9735  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-007-Q1-E1-C5  
  
 <400> 9735

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gtcgcgcact cgtcgggatg tggataggac ctatcattgc gctccggcgt atttacatag 180
caacatcgct catgtatcac ctgtcttgca atatgcacgc acatcgctcg gtcactgatc 240
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catccgctcg gtactgacca cggattcacg tctaactgcg tctccggacc gccaggatg 360
aaaatcccag ttccgctcat gattcattgt cacataagtt tgcacgcacc 410
  
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<210> 9736  
 <211> 446

<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-C6

<400> 9736

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cgtcgcgcac aaccgtagcc tcaacattgg aatcacccca acgtgctcta gttgtagcct 180  
tcgccagttc tagcaccttc ccgaggctgc ttaccgccgg ggatgaagca tcctcaatca 240  
acagttctag aaacccatct taccggttcc aacaaattac tttaccacct ctagcacctc 300  
catcgcaaat tggtcactac caaggatgta gcatgccaaa ttcattttct atttttcaag 360  
tgcccaaat gagtttttgt gaataaccta gcaataatt gtcacaaaat tggaccacgt 420  
caattttata aaatactacg ccatat 446

<210> 9737  
<211> 441  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-C8

<400> 9737

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gttggtgggg acgagctgta tgccatggcc atcaaccgtg gcctgctgcc caaggtggac 180  
tattttaagg ctcttaccta tggccgctcg ttccggccact gccagccaga ggactggcac 240  
tggcgccctc tccagccgcc tccccttgaa tacgaccacg agaaggatca acgctacaac 300  
cccactgcgg cgctgtgac acaccctgt gctattggcg catacacggt tgttcgtgat 360  
tcacagatct ggatatctac aacgggcgct ggcacgtact cctttgacac aactagcagc 420  
gtgtggagaa agattggcga g 441

<210> 9738  
<211> 435  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-C9

<400> 9738

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gagagcgtgg gtggaggagc cgtggtcgag gtatccatgc gaagaatgac atggtcgatg 180  
tcgagttggg gtagccggtg tcgaggaagt cgccgtggag ccgcgggcgc aaagaggcgc 240  
cgagtttagtc atgggagcag tagtggtgca ccggggagaa gacgttggtg acgacgcgtt 300  
gcgcccgggt tgccaagagc ggggacatat cgtagacgaa ggcatgcacc agtggtgcca 360  
gcaccgggca tgcgtagatg gacgaagacg aagttgacga agcgccgcac cagacttgcc 420  
aggccccggg acacg 435

<210> 9739

<211> 455

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-D10

<400> 9739

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ctatcactcg ttgtccgaag atcttgtgca ttcatttggt acgtgcttct attagttttg 180  
atggtgaact cgtaaagcgt caggacacg tttcttttcc tttacttctc aatttatccc 240  
catttgcagg aggacattc accactggac agggacctgg accttcagct atgaacgtgc 300  
aaaaatatga cagccgtct ctcaaattct ataggcaact aaatgcacac atgcccatta 360  
atatgtttcc tactggtggg aactcatcaa gtcaggcacc taaggatcaa gtaacaaatg 420  
gtggtgtcca ctacttaat gagggaaatg ctgat 455

<210> 9740

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-D5



<400> 9740

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actttggcct aatcatggtc cgcctgcgct tcatgtccga tcaagctttt ccaataatgt 180  
tcggcaccgc gacaaccacc atgaccaggt ttggcctgat ccttgtcggc gtacacctct 240  
tatctttgag agggcccaac agggcgtttt aattcgttct acaactcact tctgttagtt 300  
ggctctcaag atgcttattg attttcgtag cctaggggtg tataaattgg tcaaactgtg 360  
tttaaagagg cgaggtttta ctatttaatt ttctaacgat cctatactat aacagaagtg 420  
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<210> 9741

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-D7

<400> 9741

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caacaaatgg tgatgccagg ccatcgtgag tcaaacctgc agaaggaact gaacagatac 180  
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ttcatgggcy caattgggtc aggaaccggt attctgttgg ctgttaccat catataccag 300  
tactttgaga ccttcgagaa ggagagggcg acagagcttg gtttcttcgg gttttgattg 360  
atacatgata gctttgggag catgttatgg ctacagcaca gcttgagtct ttctagacag 420  
tcgcagcac 429

<210> 9742

<211> 441

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-E11

<400> 9742

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 ggagctgcac gcagaggtaa tactcagcgg aagacagttg aggtcgagtc tgttgcagct 180  
 gcagggaagc aacaagctag agaagtagtg aagaaatctt tccgtgccga gttcctcgag 240  
 aagctgcaca aagatttgga tgacgatatc gatgtgagag ccttggaataa tggatttata 300  
 tctgtcactc ctctgaatgt gcacggccgt gtcgagtctg aactcgaagc tccagcgtca 360  
 gactggctgt cagcagctgt gtctgtatcc gaagaaaagg aagctccagc gacctaacaa 420  
 acacgcagaa atgtacactg t 441

<210> 9743  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-007-Q1-E1-E2  
 <400> 9743

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 agatcgagtc tgttcttcat acctatagtc cagcaaaaag ccactagtcc tagtccgagt 180  
 ccagtaattg ttgcattgtt ctcgatttcc agatcacgcg atactccgag tcgtgacaga 240  
 gaaggactcc ccaacttccg agccatccgc agaagaaaaa tagttccaat ttcaaaaaaa 300  
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 aaaaaattgt tgcggagc 378

<210> 9744  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-007-Q1-E1-E5  
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tgggectect agcgcgctct ggtgggttgt gctcccctcg gggaaccccc caagcgcagc 180  
cagggcccggt cgtgttcctt ctggaacata aaaattctcc gtaaagtttc atggcatttg 240  
gactccgttt gatattgatt ttctgcatg taaaaacat ggaaaaacaa aaactggcac 300  
ttggcactat gtcaataggt tagtaccaaa aatggtataa aatgattata aaacatccaa 360  
gattgataat ataacagcat ggaacaataa aaaattgtag atacgttgga gacgtaccaa 420  
catccccaag cttaatcct act 443

<210> 9745  
<211> 442  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-007-Q1-E1-E7  
<400> 9745

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gctaacaagc aagatcttcc caatgccatg aatgctgctg aaataacaga taagcttggt 180  
ctacactctc tgcgtcagcg aactgggtat attcatagtg cttgcgccac aagtggggag 240  
ggctctgatg aagggttgga ctggctctcc aacaatatag ccagcaagtc ctgatagctt 300  
ccaatggatt ggcagagccg cagaagcgac tggcggctgg acaaatgact ggaatatgta 360  
ggcatgttaa agtgctgcca gagtgttgac atgtctttgt aagctctatc tttgagcagt 420  
tatcacactg ttactatggt gt 442

<210> 9746  
<211> 438  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-007-Q1-E1-E9  
<400> 9746

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gaatggtgtg gacttgaata gagaagcgct gctgccttat ggaggctctt gcagtttctc 180

tgtgagacat ggggatcctc acgactcatc gtccttcata atagagccaa ttgagctatc 240  
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 tatgccacca caaactgc 438

<210> 9747  
 <211> 87  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-F11

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<210> 9748  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-F2

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 ttgccattca tggacttggg acagagcttg ccaaattggc accaacggca atcgtgacct 180  
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 ctaactacca ccgctggag accagcccta ctaccatatt tgacattgct cgcgtcactc 300  
 aacatgtagc gattgtggc ccatctgcat acacgtactg acgataagcg tgctcagaca 360  
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<210> 9749  
 <211> 442

<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-F5

<400> 9749

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tggcagcaca acataaattc atgctaaacc atctcttttc ggattgttgg ttgtttcatt 180  
gttattccct acggtgtagt tgttcgctg atgtatcagt tcaagatgtt tatgtgttct 240  
cttaaattga ataaagtgtt gtctcaattg tgtattatat gtcatacttt atttattttg 300  
taccatcatc gtgtgacgcc tacacctggt aaaggaaaag aaaatcgtgt ggcaccaaatt 360  
taaattcagg aaaaatactc acgcgtagac atgaaaaata tacgcatgct tgtagaatta 420  
tacggtagaa tgaaatgtac at 442

<210> 9750  
<211> 307  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-F7

<400> 9750

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atcttgctg gcagcgtctt attatggtgc aatgctggga tcaactgcgat cttcatattg 180  
tggttgctca tagctatttt cgagagttga gtctgtcgta caatagatat ctccagacat 240  
gcttgatgat gtgatttgat gaacctgcat tgccaagaga gcacagctgt ataacctgaa 300  
ggaaagt 307

<210> 9751  
<211> 379  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-F8

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 aactatcatg gtggctggta aacattgaga atggttgaca acattctcaa tcccaattaa 180  
 gcatcatctt taaaacccaa caaaattaat taaagtaaca tgatgagatt cacatgaaaa 240  
 tccaagtact agatactcaa aacgtccata actggggaca cggctaataca tgattagttt 300  
 atacactctg cagaggtttg tgcacttttc cccacaagac tcgatctcct ccgttggttt 360  
 tctcgtacta catggtgtt 379

<210> 9752  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-007-Q1-E1-G3  
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 accctagttc aatagaacca tagatttttg gctagcgatg gctctgtcat acgttattcc 300  
 ttttaagtag tttttttata aggcataatt tttcaatata gtggcatata gttgggtaca 360  
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<210> 9753  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-007-Q1-E1-G4  
 <400> 9753

cgggtcgacc gtaatccgga tctggcacat gtctgaatg atccaagaat tctccgcaa 60  
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gccatgagca acattgaatc ttctccagaa gggtttaata tgctgcgccg catgtatgaa 180  
 actgttcaag agccatttat gaatgcaacc acaatggctg gggagggcga cacaaatgca 240  
 aacccatttg cagctcttct aggaaaccag gggcttaacc aagccagaga tccaactgga 300  
 gatgcaccaa ctactgctcc tgctccaaat actaatccac tcccaaatcc ctggagtgc 360  
 aatgctgggg ctgcacaagg agcagcaagg ccttctgctg ctgcaaggag tgccacaagc 420  
 ggtg 424

<210> 9754  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-G5

<400> 9754

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 gggtttttgg agaggagact cttgccattc ctgcgcggcc gcatctttgc tcacctcgcc 120  
 ggccgcttca atcaatcagt gttgattaat cggcgtcgga tccgtcgatc taagagatcc 180  
 atgccatcaa gagatggggc ctcgtatgga gtgcagttca gacgagtcgt cagagctagg 240  
 tgacactgat atcgatgact atgctgagaa ggcgtacaca gacctcaagt ctggcaagct 300  
 tgtggcgagg ttccggcgcc acaggtttag atgcccgttc tgccccggga agaagaagca 360  
 ggactaccgc tacaatgagc tgcttcagca cgcaattggg gtggggcgcat ccaaccgtgc 420  
 tgccaaagtg aaggcaaacc atcag 445

<210> 9755  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-G6

<400> 9755

ggtaccggtc aggaattccc gggtcgacca ggctgagaaa atgggacttg actacatgga 60  
 tgttgaaagt ctcaagaaga tgaacaagaa caagaagctt gttaagaagc tagccaagaa 120  
 gtaccatgct ttcttggcat cagaggccat aatcaagcag atccctcgtc tccttggccc 180

tgggtcttaac aaggcaggca agtttccac tctggttagt caccaggaat ctcttgaagc 240  
 caaggtcaac gagacaaaag ctacagtcaa gttccagcta aagaaggttc tttgcatggg 300  
 tgttgctgta ggcaacttgt cgatggacga gaagcagatc caacaaaaca tccaaatgag 360  
 cgtcaacttc cttgtgtccc tcctgaagaa gaattggcag aatgtgaggt gcctgtacgt 420  
 gaagagcacc atggggaagc gtgtacgt 448

<210> 9756  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-007-Q1-E1-G7  
  
 <400> 9756

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 ccatgacacg gtgcaggcag ggagcatatc aggatactgc tgctcgctg ctccagcgca 120  
 ggcggagcta gcagcgagga ggagaaggga gttggggcgc tccggaggag aacgaaggga 180  
 ggcggcgcac gataggaacg agagggagat cgagagaagg aggagggttc gagcgcacgg 240  
 gatgggatcg ggctcctccc tgacggcgct agcagtgaac gggagatgaa gaggggatcg 300  
 ggatacggcg gctagagttg agaaggcggg ggtcggctgc gcctaaagta acaaattggg 360  
 cagaagaaga ggttgggagg cccaggtggc cagaggcctg gttgggctct ctctccgtta 420  
 ttccttttag aaaaaaatt gtttat 446

<210> 9757  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-007-Q1-E1-G8  
  
 <400> 9757

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 tgaagcatgc gaagtaatca gtggatacgc ttgttctgct gatatttacc ctgaagtcaa 120  
 gctcgataca aatcccgtct caggtcccggt ggcttcagag cccgttgaca gagaatacga 180



agagtataac agccccaaaa cggttttccg tgaagaggcc tgcgatgac ttggaggaga 240  
attctgtgaa cctgactttc aaaaagatgc caactagaag aaacaagatt ttatgtcatg 300  
tgaatatgtg tttgtatttc tacaagtctt tgtaaccact ccttaattta tgatatctag 360  
cttcactact taatcaagat tgatgttata aaaaanaaan anaaaanaaa aaaaaaaaaa 420  
gcgcccgctc tagaggatcc aagcttac 448

<210> 9758  
<211> 440  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-H3

<400> 9758

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gcatacagtg cgattagcac ttgacctctt tcagcccatg tgcaaagtac aggaaagttg 120  
gatcagcagc tccctccttg tagtaggcga acaccacgcc gccatcatca tgcagtctct 180  
cgccaacaaa gaactgaagg tccttgagct tgctaagaag atactttgtg gcggactcaa 240  
cattcttctt gaaagcatct aggtcatccc cttcaagctt ggcagagagg ttcttgatgt 300  
agcgcttcat gtgagagata aactgcttct tgtcaaaagc aggttgctcc tgaagacgga 360  
aggtgtcaac aatgtcaacc accttcacgg cctggtcac aacaccctca tcatcaccac 420  
caccctcaag cagaggattg 440

<210> 9759  
<211> 445  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-H6

<400> 9759

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gtgggaaatc ccattggcc ggggctgtta acgggttatc ggatgcataa cccgaccgga 180  
tagcttaacg gtgttccgtt acgggtgatg ccacgtgtcg gtcacccttg acgaaagcag 240

ttctgtggca cacgatttat cgtcatggaa gtgtacacat ccgtgatgat aatttttgga 300  
atgtcatcga acacttctac gacagcacag gtatgactat cttgattctg tcataaattt 360  
gtcatggatg tacatgcatg acaagaaatg cgacctactg tgacaaacac gtatcatcac 420  
ggaagtgtat attttttgta gtgag 445

<210> 9760  
<211> 242  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-008-Q1-E1-A12  
<400> 9760

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gggtacttcca tcagcacacg aacaatccca gtcagtgaga cggcactcat gggaaggata 120  
cccatgcaga gactgagctg gactgatggt gttactgact gcctgttcgc cagttgacgc 180  
cagatccgtg cccacattgg ccgatcagat tcaagtgcag gacaagttcg atctgtctac 240  
ga 242

<210> 9761  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-008-Q1-E1-A6  
<400> 9761

ccctgcatat accgggtccga acttcccggg tcgacggaga tctccgttga attggccaat 60  
tggccatgat gtgctcctcg actagtcatg cgtgccttgt tgctgcaaaa cggcatgcaa 120  
agcacatggt cctctattgt ggataatgta tccggtgctc tcagttttag gatgctatcc 180  
atgttcccaa cctaaaaatc atcataactt ttgtaaagta gatcagccta aatcatcata 240  
acttgctca agatcccaga tgcattgctt gtcttcagca accagaaaca gcaactcacc 300  
tctgcaaaga ctgtcccttc acggtcgcgg tttggaacca ggtgaactct tggactaacg 360  
aaggcggtcc aatctcgggc ttctcccgg agccaggaaa tgtgtctgac tgggtgggaca 420  
agactctgaa ttcccagtcc aagca 445

<210> 9762  
 <211> 470  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-008-Q1-E1-A7  
  
 <400> 9762

acgcctgcat agtacgggtcc gaacttnccg ggtcgacaaa gctaataacg tcaactgcatg 60  
 caaggataacc ttccgtgggc gtgtttgtga gtgccctatt gtcaaagggtg taaaattcgt 120  
 gggggatgga tataccaact gtgaagcttc cgggtgttggg aggtgtgaga tcaacaatgg 180  
 aggatgctgg aaagaaacta agaatgggaa gacaatatct gcctgctcgc atgaagaatc 240  
 tgaaggttgc aaatgtccac aaggtttcaa gggcgatggt gtaaaaagct gtgaagatat 300  
 tgatgaatgc aaagcgaaat ctgcctgtca gtgcaatggc tgcagttgcg agaatacatg 360  
 gggaagctat gaatgcagct gtggtggtaa caacatgtta tacatgagag agcaagacac 420  
 gtgcatcagc aaacaagctg cctcctcagt cggctggagc ttcattgtggg 470

<210> 9763  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-008-Q1-E1-B2  
  
 <400> 9763

tggtagcct gccgggtaccg gtccgagatt cccgggtcca ctacctgatc cgcacaaagt 60  
 ggggtgccctg cctcgagttc agcaagggtg gcttcgtctt ccgtgagcac aacagctccc 120  
 ccgggtacta cgacggccga tactggacaa tgtggaagct gcctatgttc ggggtgactg 180  
 acgccacaca ggtgctgaac gaggtggagg aggtcaagaa ggagtaccct gacgcctatg 240  
 tccgtgtcat cggttcgac aacctgcgcc aggtgcagtg cgtcagcttc atcgccctta 300  
 ggccaccggg ttgcgaggag tccggcaagg cctaaactac gagttgaaac aatggcctat 360  
 ctcgatgaa ggtcttttgt gaacttcact tttgtccaaa actctgctgt acgactctgc 420  
 tttctgaccg gagcatacct tttgttct 448

<210> 9764  
<211> 462  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-B5

<400> 9764

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atccagtcgg agtttgcgga catcatccat caagatgtcc ttcatacctt ggggcagttc 120  
tacctcagat atcaaccgtc caacaatgag atagatggaa cgctacaaat gcaggggtgac 180  
aacgactgtg atttcatgac catcacgaca gacggcgggt tcatccacgc tcctgtccga 240  
tgagtcgagt cgaaagtagt gatgtgtagt tctgaaacat tgattggctc atgttgtaat 300  
taaagtttaa tgaattcgta tgtctctttg gtttggacag tcattcaact tagatgtaat 360  
tgatgctatt tattagtagg agcatgaatc gtgctattaa tgtctttctt ttctcttctg 420  
atccttttgt tgcatactta catattcctt atgtaatttc tg 462

<210> 9765  
<211> 444  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-B7

<400> 9765

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cccttggtgc gagaatggaa ctcaaaatcc cggcggcgaa tcaaggcgca tcagcttggt 120  
gctccatgtc tttgtcttgg agctgtacag gtggagatga aagtgcccggt cgggtgtactc 180  
ccgctcaacg aaggccctgc ggagcacggc gatgaagaac atgtcctagt cgcggcggcg 240  
cagcaacgcg acctcgtggc cgaagaaggt gaagtcgggg ggcgagtgga cgagcttgac 300  
cgacggcgga gtgttcttgg tgccggcctg gtagacgaag tagcggatgt tcttggcgta 360  
catgtactgg cgctcggggc agatggtgat gcagagcaag gcgaggccgt cctccgtgta 420  
gcagaccttg gggatgctgc cgta 444

<210> 9766  
<211> 464

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-008-Q1-E1-B8  
 <400> 9766  
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 catcgaaaca tcgggacacc tttgccccta tcaagtgata tcagatttcc aggttgctca 120  
 gtgagatddd acagtttttc gtagtttaga tcgagtttgt tcttcatacc tatagtccac 180  
 gaaaaaggca aaaaaaatta gggttagttc atcttatccg aaccaatctg agcctttgca 240  
 taatcttttt ggccctttgct ttgttgaatt tgccagtga tcacgtgtc aagttgctgg 300  
 tcctagagtc tagcccttta gagttttgag ttctgtcac aagttgtcac gtcgccgccg 360  
 caccatcgtc atcacagctg ccatatacca ccatcgtcat cgccgctccc atataccaca 420  
 tatccaccgc ttatccgcca ccgcttcgaa tccgtatcca tata 464

<210> 9767  
 <211> 332  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-008-Q1-E1-B9  
 <400> 9767  
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 gcagtcttct cccgtgaacc tcgattggat tttcacgtta tgatcttgca cagtattgca 180  
 gataatatgt agtctatcca aacaatgctg agatgatcta cgggattaac tcataagaca 240  
 tgtgtgggat atagtattgt cgtcatatag gatttggaca cacatatgat acgatattac 300  
 aacttagtac gtccattgac acaccttagt cc 332

<210> 9768  
 <211> 300  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-008-Q1-E1-C2  
 <400> 9768

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gagattccct ccgcttaaag acctgatgtc gaggtgatga tcatctctga tgtgatggaa 120  
gtcatagcat gttgggtatg taggggtccag gcatgtgat ccctcggcgt tttgggaggt 180  
tttagcgttg tgcattgtg acgtcattgg tactagtga taggtggtct ttgcaatgta 240  
gacggtgcac ttgggtatag ttaatccaaa ccagtcagt gtttgaatat cgtctgtgat 300

<210> 9769  
<211> 89  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-008-Q1-E1-C8  
<400> 9769

gttgtgtctc acaattccct atattgagtc gtattacgct tatttcgac gaatccttcc 60  
ctgatctgca ggatttcatt ctcttgtt 89

<210> 9770  
<211> 440  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-008-Q1-E1-D10  
<400> 9770

gggtcaacct catgtgtcag gatcttagt ggacgtgtaa tttggacttt cgtctgagt 60  
ttccttgttg tgatttgct gttcctcttg atttccctc caagttgtga aagaccaggc 120  
cacctagggt tctacccta catcactgct tgcataccat cattccaaat aagcacaggg 180  
gtatttctgt ctttgatgaa atacaactaa ccatacagga actttttact gaaattgata 240  
tggacatcat cataatggga ggttggagta cacagacaca aaggattgat atatcttcag 300  
aatgcaact cacaatatca gtagttgcat gtattgctc aaagaaggc tgaacttatc 360  
ttgtcttaga atgaaacaac ccgaggcaac catattcaca cttggagtac taacagcttc 420  
aattagcctt gattatatac 440

<210> 9771  
<211> 468

<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-D5

<400> 9771

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ttgggcagcg ctggggaccg gcaagtcgcg agttcttacc tcgaaggcgt cattctggca 120  
aaccaagata aggataactt cctcgtgcct tactttcccg agtaagtcac cccctcaacc 180  
gccccgtaac atatgaattc ttagatttcg atcggttttc ttttaacatt ccgtgttttc 240  
tgcagtgaca cacattgcac gctcactctc ctaagcccca aatattccat ggccacgtat 300  
ttcgacccgg accgtcagtc gaacgtagac tacacaaatg tcaagaaggc tcttgatgat 360  
gttctccccg gctacgtcaa atctggaggc accttcacca ggcctattcg taagtacggc 420  
aagcacgtgt tctcccacaa tacgacattc tactgctgca agcagccg 468

<210> 9772  
<211> 391  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-E12

<400> 9772

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cttctcgctt ctcggaatt tgactcttct ccaaaggctc ctttcttaca taatgcctgt 120  
tgagactcgc cccgcgtaca ttatatgcc tcttgtaaga tatcagaatt gttcagtcta 180  
gctgttttcc gatgaggttt tacttttttg tactttgtta gatctatctg tgctttatcc 240  
tggaatgcta ctggcaataa tgtgtagctg tgaacatata aatgttgat aaaatgttct 300  
gccttgagaa aaccttgcag cagggaattt tgaagcggcc gctctagtgg atataaactt 360  
atctacgctt ccatgcgacg tcaagcttct t 391

<210> 9773  
<211> 110  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-E5

<400> 9773

caaaattccc tataatgagt cgtattagca tttaatgcat atcctcactc atctttgttc 60  
ggaacttggt accaatccag ttattatcat gatctaaatc ttttgatacg 110

<210> 9774

<211> 455

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-E6

<400> 9774

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aggcattggg aagtaataag tagatgatgg gttgctagag tgacagaagc ttaaacccta 120  
gtttatgagt tgcttcgtaa ggggctgatt tggatccaca tgtttcatgc tatgggttagg 180  
tttaccataa tacttttgtt gtagttgctg atgcttgcaa tagagggttaa ccataagtgg 240  
gatgcttgct caattaagga catcacccaa gcaccgggtcc acccacatac caaattatca 300  
aagtaccgaa tgcgaatcat atgaatgtga tgaaaactag cttgacgata ttcccatgtg 360  
tcctcgggag cgcttttctc tatataagag tttgtccagg cttgtccttt tctacaaaaa 420  
ggattggggc accttgctgc actttattta ctttt 455

<210> 9775

<211> 394

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-F12

<400> 9775

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ggttacaagt gaacacatca tgactttcag cagttggctg gcaacacgct tcacaggtga 120  
gaacactgtt tgtgctgagc tatactcgtt gtccagggga ccatcttcga ctgtattgac 180  
ttacaacgga tatgagataa atgggaatgc attttacacg atcgcccaag atcaatagag 240  
catcaaccac aacatcgggtg ttcgctttga tgcagcaatc aagatgggaa aggacacata 300  
ttatggttac atagtggaca tatcggaact tgactacgga catgatttta aggtcccttt 360



gattaaatgc aaatacgtca atctgtcacg aagc

394

<210> 9776

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-F2

<400> 9776

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taaggggctg atttgatcc atatgtttca tggtatggtt aggtttacct taatacttct 180  
gttgtagttg tggatgcttg caataggggc taatcataag tgggatgctt gtccaagtaa 240  
ggacagtacc aaagcaccag tccaccaca tatcaaatta tcaaagtata acaccacgat 300  
gcggttatat ctctacgtg ccggagcaca acttagaggc ataaccgcat agtaggcatg 360  
tcgcaagagg ggtaatcttt acacatcca tgtactgaac acaaagaga taaagagttg 420  
gcttacaatc ggcacttcac acaataaata aa 452

<210> 9777

<211> 465

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-G6

<400> 9777

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gggtggaact atgatcaagg tgaagacact tactgggaag gaaatcgaga ttgatattga 120  
gccactgac acaattgata gaatcaagga acgtgttgag gagaaagagg gtattccacc 180  
tggtcaacag aggtcatct atgctgggaa gcaactcgct gatgacaaaa ctgctaagga 240  
ctacaacatt gaaggtggtt cagtgtcca tcttggtgctt gctctgaggg gcggtcagta 300  
gatgcaacct cgacgtggac cgtataggcc atttctacca gaacttggtg cagacctgga 360  
tctgtgaatt tgccggttga ttgaagtgcc atgtaattga cgcatttggt aagtcagctg 420  
tcacctgtac ttggatggaa ttggttgaac taaatgctta tccgc 465

<210> 9778  
 <211> 478  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-008-Q1-E1-H8  
  
 <400> 9778

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 gaagggtcag atgccctcgc agatcgggtgt tctgctccgt gaccagcacg gtatccccct 120  
 tgtgaagagc gttaccggaa gcaagatcct ccgcatactc aaggctcatg gcctggcgcc 180  
 ggaaatccca gaggatctgt actttttgat taagaaggct gtggccatta ggaagcatct 240  
 tgagaggaac aggaaggaca aggactccaa attcaggctc attcttggtg agagcaggat 300  
 ccaccgtctt gcccgttact acaagcgcac caagaagctc ccgccacct ggaagtacga 360  
 gtctaccact gccagcactc tgggtggctta agagggctct tcactctggtg tgctcttacc 420  
 ggcttcagga tggctctggt ctacatatta tcaatttcac gtaacgtttt tgagtttg 478

<210> 9779  
 <211> 347  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-008-Q1-E1-H9  
  
 <400> 9779

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 caagatgaca gacctaaggt aagtttgggt gcccgcggtc atcggcccta tgacaagaag 180  
 aaggaagagg cccccagcct gacacctgtg cccctccca tcaaccgacg tggctatcgg 240  
 gctcgccccg ccacagcaac tgtgggcat aagaaagtgg agagaaagcc ccctgacgct 300  
 gatggctgcc tgcacgcgga cccgatctg ggtgtgttgt gtcctac 347

<210> 9780  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-A5

<400> 9780

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cggagacttc attccgtgca ccggaactct ggcttggctg tggctggggtt agcagcagac 180  
ggtaggcaga tagtctcaag agcaaagtca gaagcagcca actatgaaaa ggtatacggg 240  
gaacccatgc ctgtaaagga attagctgat cgtgttgcta gctatgttca tctgtgtaca 300  
ctctactggg ggctcaggcc ttttggctgt ggagttattc ttggaggcta tgatagggaa 360  
tgcacgttg acgttgccaa gataatttat ggtgtacacg acgaagcgaa agacagatct 420  
tttgagctgg aactgagctg ggtatg 446

<210> 9781

<211> 473

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-010-Q1-E1-B1

<400> 9781

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aaggtgcaga agctcgtcct caacatctcc gtcggcgaga gcggcgatcg cctcactcga 120  
gctgccaaagg tgttggagca gctgatcggg cagtcgccag ttttctccaa ggcgaggtag 180  
actgtcaggt ctttcggcat tcgtcgtaat gagaagattg cctgctatgt gacgatcaag 240  
ggtgagaagg caatgcagct tctcgagagt gggctgaaag tgaaggagta cgacctcttg 300  
acgaggaact tcagtgcac tggttgcttt gggtttggga ttcattgagca cattgatctt 360  
ggcatgacgt atgaccacgc aaccggcatc tatggtatgg acttcttcgt gggctctggag 420  
cgagctggat accgcgtctc ccgccggggc cgatgcaagg gccgtgttgg gat 473

<210> 9782

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-B10

<400> 9782

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ctatctgccc agcacaatgc ctgcactttt ggtgcaatac aggcaggatg aactcaacaa 120  
tctccgaggc gacggcacga ccggaaagta cgaggagtgg gaccgtgtgt accgctatga 180  
ctactacaac gacctcgggtg agccggacaa gggccatccg cgcccgggttc tcggcggcac 240  
ccaagaactc ccctatcccc gtcgttgcag aactggccga cccccaacaa aaacagaccc 300  
tagatcagag agcagaattc ctcaagtaca gatacaggag gccctgaaca tctatgtccc 360  
gcgcgatgag cgctttggcc acctcaagct gtctgacttc cttggctact ctctcaaggc 420  
catcacccg 428

<210> 9783

<211> 72

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-B11

<400> 9783

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agtttcgatg ca 72

<210> 9784

<211> 466

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-B5

<400> 9784

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atgttgagtc catggattat acgcactctc acccttcaac cattgctagc ctcttggtgc 180  
gcgcaacttt cgccggtacc atacaccac gatatacctt cctcaaaaaa gacaccatac 240  
ctacctatta tggcatttcc atagccattc cgagatatat tgccatgcaa ctttccatca 300

ttccttttat tatgatacgc atcatcattg ttatattgcc ttgcatgat catgtagttg 360  
 acatcatatt tgtggcaaag ccaccttcat aattctttca tacatgtcac tcttgattca 420  
 ttgcatattc cggtacaccg cgggagcat tcatatacag acatac 466

<210> 9785  
 <211> 471  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-010-Q1-E1-B6  
 <400> 9785

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 acaacagaag ttttttgctt atcgtcttct atctgagtgc tctaggttca tgttgggagt 120  
 ctttttcttt tgaaaactgt tgggtgtgtg gactgtgcct gatgatggcg tacgtaatat 180  
 gtgcggtacc tgtttaggtg ctcgcagtgc agatttgggt gacattcaag ttttcgcccc 240  
 atgatctgcc gttcctgatg acggggcgac atagtgggtt tcttgttatt gctctgaact 300  
 cgcgtttact ctttctctag tcctgatagt ttcagttcct gagacagtgt atttccgtta 360  
 tgaaagtaat ggaaagagga aaatccggtt cgacaaagac gtctatggtg ttggctgggg 420  
 agcctttata tttgccagct ttctttaccg gtttgttcgc aaagcgattt c 471

<210> 9786  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-010-Q1-E1-B9  
 <400> 9786

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 ggatgggtga tggagttgct tctcgaagat ggtgggagag gcctagtaga caaactgagg 180  
 gtggaactgc aatattatca ataagagtgg ggatgtgttt ctgtgtgtgc ctgtgcgtga 240  
 tagatctgtc gggacacatc catggatgat gaaggggaac catgtgtttg gtaagctaac 300  
 ctaactagat cggtagatta attgttggtt gtcggaggaa gggagagaca taactaatga 360

ggtagatcga tcgacgcgtg ggaaaaaacg agttataagg acctaactag ctatatgtat 420  
a 421

<210> 9787  
<211> 449  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB31-010-Q1-E1-C1  
  
<400> 9787

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cggttggaat ctttggacgc cattgttcag aagcacgtcg acctgaccac gagagacgct 180  
gctacttagc tgccgttcgg tgggccggcg ccctgagtcg aagaggtgga catcatcgat 240  
ggatgcatct cttcttcttg cctcctgtta ccagcactgc atcgctcgt ggccttaatg 300  
ttttattagt atagtactcc ctccattccc aaatataaat ctttctagag attccagcga 360  
ttgactacat acggagcaaa atgagtgaat ctacactcta agatatgtct acatacatcc 420  
gtatgttgga gtccatttga aatacctaa 449

<210> 9788  
<211> 54  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-010-Q1-E1-C11  
  
<400> 9788

acatcactac accctatagt gagtcgtatt aaccagcgag cggtccgagg tcgg 54

<210> 9789  
<211> 388  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-010-Q1-E1-C5  
  
<400> 9789

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aatgaaaata attggactct tcctgagcca attcctgagg caattcctga accaattgag 120  
ccaactcctg agcctattcc taaacccagt cctaagaaga gaggtgttct atttctcagt 180  
cctgaagata tgcaagaggc aaagaaatca atgaaagaaa aaggtataaa agctgtagat 240  
gttaagaatt taccacctat tgaagaaata catggtctta atataccgcc tgtcgaagaa 300  
acacattgtc ttgataaccc gacacaggta gtaaaggtaa attctctcta tagatatgat 360  
aaagttgaaa tcccgtctaa taaatttc 388

<210> 9790  
<211> 388  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-010-Q1-E1-C8  
<400> 9790

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cagctgcaag gatgaggggtg gctgcaaacg agaaggcgga ggctgagaag attgtccaga 120  
tcaagcgtgc cgaggggtgaa tcagaggcca agtacctgtc tggcctcggg atcgcccgcc 180  
agcgccaggc cattgtggat ggcctgaggg acagcgtcct gagcttctca gtcaatgtgc 240  
ctggcaccac tgcaaaggat gtgatggaca tgggtgctgat caccagtac ttgatacta 300  
tgaaagaggt cggcgcgctc tccaagtcct cggcgggtgtt catcccccat ggcctggcg 360  
cgggtgcgga catcgccacg cagatccg 388

<210> 9791  
<211> 367  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-010-Q1-E1-D10  
<400> 9791

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gtcacaccgg agcccagccc cgaagaaggc caggccggaa ggttgggact ggatagggtc 120  
gcgccggcga agaagacgcc caacttctcg cagcgggaga ttctcttctc gctgaggctc 180

atacccgagc tcgtacagta gcggtgtcctc ttctcggata gtagtatcca cgggtgcgccc 240  
 gtgtaggttg accaatcttt gacacctcgg aactgaaacc ccaaggcccg gatgcggcat 300  
 gtaaatacagg gccaccacga cccgtccgat tgtttgcatac anggtgaaat ccactagtgt 360  
 ttgtgcc 367

<210> 9792  
 <211> 395  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-010-Q1-E1-D2  
 <400> 9792

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 cgcaaccttc tatcggttg ttacaagaat gttattggtg cccgccgtgc ctctgggcgc 120  
 atcatttctt ccatcgagca gaangaagag agccgtggca atgaggaccg tgtcacactc 180  
 atcaangact accgtggaaa gattgaggtt gagctcacta agatctgtga tggatccctc 240  
 aagcttcttg attccacct tgtccctca tccactgctc cagagtccaa ggtcctctac 300  
 ctaaagatga aggggtgatta ctacangtac cttgcccagt tcaagagtgg aactgaaagg 360  
 aaagatgctg ctgagaacaa catggtggca tacaa 395

<210> 9793  
 <211> 463  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-010-Q1-E1-D6  
 <400> 9793

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 gaacgatact cccaccaccg ctgcctcacg ataggattcg gtgaatttct ttgcaccatg 180  
 gccagagga gcagctctat gtactccgc gcgactctct tcgggagtat agccaccttt 240  
 tcgctctgtt gcagatattt ggccatggat gtcgccgtca tcgctagtgt gtccttggtg 300  
 tcaaaccaag actgtatctc caacatccta gctagcttca caaggtcgcg ttctgcaatc 360



ctcatgtatg tgttgtaetct ctccatcgat ctacttctcc acagcacctt cactcgccgg 420  
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<210> 9794  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-010-Q1-E1-D7  
 <400> 9794

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 caaccactgc tctcaacata aacgaccctg ggcttaattc tggccttttag attatgattt 120  
 ggttttcgctc tcaagtatag tatgtttatg aatagatcac gtactgctta catgtgtgtc 180  
 cagttgtccc aacttgtttc tctattgaag attggaactg tttttttatt agaacgaaca 240  
 gacatgcccc tacgttgac catgagaact aaatattatg tgctcgtcta tcaccaatct 300  
 cataatgoga ccgtcacttg tgtgcaaaca attagaagtg ctgttttata cttgcgcttg 360  
 tccctaattgg gcaatgt 377

<210> 9795  
 <211> 283  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-010-Q1-E1-D8  
 <400> 9795

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 cagaacgagc gatgatagcg aaattagga atcgcttgaa agatggcgaa agccgtatat 120  
 gtggactgag tctttggacg atgctttgag acaagtttcc caaagagcag gatccagagt 180  
 tcagtaatga agcatatgtg agcccagtag ttcacatctc gaaatcatgc gcaacgtttg 240  
 cgcttatccc tagcgattgc ttatgggatg tcattagcgc gaa 283

<210> 9796  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-D9

<400> 9796

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ttttacagtt tttcgtagtt tagatcgggt ctgttcttca tacctacagt ccacgaaaaa 180  
gccacaaaaa aaattagggg tagttcatca tatccgaacc aatctgagcc tttgcataat 240  
cttttttaggg ttttgctttg ttgaatttgc cgttgcatcg tcgggtctagt tgctggtctt 300  
agagtctagt ctttttagagt ttcgagttct ggtcataagt tgtcacaccg ccgccgcacc 360  
atcatcatcg cccctgccat ctaccaccac cgctccgaat ccgtatccat ataccaccac 420  
caatccgtgt ccatatacca ccaccgattc at 452

<210> 9797

<211> 453

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-E11

<400> 9797

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agtccgcagg gacatccacc accgcgtggg tcggcgaagc tggaggggct tacaacagtg 180  
gccaccacct tgtaactgat gcatttgtgt tcagtttctg gtacctggat caactcggga 240  
tgtccgcaa gtacgacaca aagagttatt gcaggcaaatt cttgggttga gggaattacg 300  
gcctgctcaa cacaacaaca tttgaaccaa atcctgatta ctacagtgc ctgctatggc 360  
atcgctcat gggaaccaag gttctctcca cgacattcaa cggcacaac aagattcgtg 420  
cttatacaca ttgctcaaaa gattcggaag gga 453

<210> 9798

<211> 459

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-010-Q1-E1-E4

<400> 9798

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ggccgtacct gtaaacttca gattatctac aagatgtgaa cagaagatac agatgcaacc 180  
gaagtgacca ggtgacatac tactccaggt ggaattaaag gcaagtgtgg ttacgcacca 240  
ccatacgtgc aacagtagca ggtancgttg tctggacaca ggagtagtct tgggtggagta 300  
ttacgatgca acgtgcagtt ggggacgcga caggcggaaa ggcggcaggc gcgacaatcg 360  
gcaacaagtg aaacaggctg atgcaatctt gctttgtttt tctcagatta tgaatgagct 420  
tgcgatagaa aaagtacggc ggacaaaaac agattgatc 459

<210> 9799

<211> 236

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-E6

<400> 9799

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tggtccgact tggaaaaggt cgtcaccagg attattggcg tctcgacctc ggtttcggaa 120  
gcagtaaatt cagctgggat tagtctttct ccggcgacaa ctgtaacact atcatgcaat 180  
atttcatgaa gatcacatga gttgtgaatt tagtacaatt taatcgctag gtttct 236

<210> 9800

<211> 278

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-E7

<400> 9800

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tggttaagtg tgtggcggtg tgtgtttgtg tgtatggact aggtggctct ggcttggggg 120  
cagatctgaa cagaagagga aatagacgga accgtctgaa tcccagagac acggtgaagac 180

gttggaggga aatagaggcg ctctagagga tctaagcgta cagtacgcgt gcatggcaag 240  
tcatagctct tcgatagtgt cagctaaatt cagttcag 278

<210> 9801  
<211> 461  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-010-Q1-E1-F3  
  
<400> 9801

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atatcaacgt gtcagacccg ctcgaggaag gttgcaagct tgggccagtt gttagtgaag 120  
gacagtatga gaagatcaag aagttttag cgaatgctaa aagtgaagggt gccaccattc 180  
tgactggggg tgtcatgccc aagcatctgg agaaaggttt cttcattgaa cccacaatca 240  
tcaactgacat caacacatca atggagattt ggaggaggga agtcttttgt ccagtcctct 300  
gtgtgaagga attttctacc gaagaggaag ccatcgaact ggccaatgat actcattatg 360  
gtctggctgg tgccgtgatt tctggtgacc gtgagcgatg ccagagatta gccgaggaga 420  
ttgacgctgg atgcatttgg gtgaactgct cgcaggcttg c 461

<210> 9802  
<211> 470  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB31-010-Q1-E1-F4  
  
<400> 9802

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cagggatgac aatcagtctt ctcgttgttt ctgtgtcatt ttttgtgaag gacaacatag 120  
aggaagcttc tcatttacac tttgtgatga gtatgctttc actggctgga cttgtggcat 180  
ttgtgcttgc attttccctt ggcatgggag ccatcccatg gattataatg tctgagattc 240  
ttcctgttaa catcaagagc cttgccggaa gcaccgccac ctttgcaaac tggatgacgt 300  
cgtggctcat cacgatgacc gcgagcttga tgctaaactg gagcaacgga ggaacctttg 360  
ctatatacgc cgcggtgtcc atgggcaccc tcctctttgt gtgcctgtgt gtgccggaga 420

ccaaggggaag ggacctggaa gagatcgcg tctcggtccg ctgaagcccg

470

<210> 9803

<211> 201

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-F5

<400> 9803

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tctgacatct tgttgatgg gaacacgacc atggaagggt tcatcatcct cattggggct 120

cctgggatga ggactacta gttcaccaca taactatctg tccgtacgca ctcatcccaa 180

ttcctgattc cctctcttta t 201

<210> 9804

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-F8

<400> 9804

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tcagataggt cccacgcact cactcccgtg tatgaggctg ctacaagatc tggcactgaa 120

gatcaaccat ccccttctcc aaaaactgat tcagaagagt ccgataccaa ggatgtggtc 180

ttaccaggag tcaatctcat atttgatggc gctcagctgc acccgttcga cattggcgct 240

tgcctccacg cccgccaacc cttgtcattg ataactgatg cgtcggacgc gtcattggcc 300

atgacatgac tgatatgcat ctgagcacgt tgccatcaca atttctgttc cgtttaatct 360

atgtgcggaa ttgaatattg gtgtagacga ct 392

<210> 9805

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-G10

<400> 9805

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ggacattatc gatcaacgac gacaactggg gaaagtacat atgggtggctg acttaggcat 180  
tatggattta agactccggc tatggcatgg cgaagtcata cccagcagct acatcgggct 240  
tgtcaaccgg atgatcaata cccacctgat cttgatcgtc atggcttgca tcaagatcac 300  
ctcacgatgt acatctgcca tgatcaactca gctcgtctc gatcctgaca agtgatgtct 360  
cccctgacga caccttgctg cttctgcgcc gccaaagc 397

<210> 9806  
<211> 439  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-010-Q1-E1-G2  
<400> 9806

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ttcttccttc ctttcccttc gccgacatcg cagcactcaa ctgccgccat ggacgcagga 180  
acaaacctca gatttggttct gacctctttg tagttcttct gctcacattt cttccttcca 240  
aagtccttct ccagtcggcc aaacatccac tacagaaaaa ctggaaaaat ggatgagttc 300  
tcatttttca cagatctgtc aagaaggaca aaacgaagaa aagaaaaaag gggagagaag 360  
aacctgtttc acgtgtcaga actaggtagt taaagcagaa taccaccag aaaatcaaaa 420  
gatataataa caatgcgtg 439

<210> 9807  
<211> 483  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-010-Q1-E1-G4  
<400> 9807

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ctccatagcc cgctcaatc tccacctgc cctccttgct ggtatacatg catctcatc 120  
 agtctgttcg ttgtacaact tgtagtgtcc acaattcaga agtaggagtt cacagaaaac 180  
 tgcttctctg aatcactcat cgttcagttt cgttctcttg tggtaattc aaagatccat 240  
 tgccacaaat gtgaatatga gtgcaaata gcttgtcttt tgaactctgg aactgttgcc 300  
 tatacatgcc tattattgct gaatatgatg gaaatgtgga tgtttaagac ggagtattta 360  
 tcaggaagaa gcttatagga cttccaataa gcaagaagtt tcatataatt ttcttgatg 420  
 caataggatg aactttcatt ttattggaac gtgctatagt ataaatttca aagaccact 480  
 tca 483

<210> 9808  
 <211> 478  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-G5

<400> 9808

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 atagttttgc gatatagaga tgataatatg tgggaggtac tagtagatgg ttgtgtttag 180  
 taataatatt ttgtgttaag gtttgtgatt cccgaagcat gcacgtttag tctctcatta 240  
 tgctatgaag ttggagcatg atttattatt gattgtcttc cttatgagtg gcgggcgggg 300  
 acgagagatg gtattttcct accaatctat cccctaagg gcatgcgtag tagtactttg 360  
 ctttgaggga taataaactt ttgcaataag tatatgagtt ctttatgact aatgtcagtc 420  
 catggattat acacactctt acctttccac aatttgctag cctctacggt accgtgca 478

<210> 9809  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-G7

<400> 9809

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caggcgatga atgagatcaa tgcagctgca aggatgaggg tggctgcaaa cgagaaggcg 120  
gaggctgaga agattgtcca gatcaagcgt gccgaagggtg aagcagaggg caagtacctg 180  
tctggcctcg gtatcgcccg ccagcgccag gccattgtgg atggcctgag ggacagcgtc 240  
ctgggcttct cagtcaacgt gcctggcacc actgcaaagg atgtgatgga catggtgctg 300  
atcaccagct actttgatac tatgaaagag atcggcgcat cctccaagtc ctggcggtg 360  
ttcatcccc atggccctgg tgcgggtgcg gacatcgcca cgcagatccg cgatggtctt 420  
cttcaaggcc agtctgcctc tgacaactag c 451

<210> 9810  
<211> 400  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-010-Q1-E1-H10  
<400> 9810

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gctgctgtca agaaaatgta tgacattcag gccagaagg ttaacaccct catcaggcct 120  
gatggcaaga acaacgcgta cgtgaagctg acacgagact acgatgctct tgacgtggcc 180  
aacaaaatcg ggatcatata agccagaggg agggctctgc agtaggcact tgtgtcgtgg 240  
gttcttatgt tattggaatt ttgtagttgt tacttagcaa agggccttaa tggttccatt 300  
gcctaccata tcgctgcaca ctttcatgaa tttgatgcaa tcgaactgac ttgtgttgat 360  
actaatatga gctttgcgtt tggctctacc taagtcaggg 400

<210> 9811  
<211> 453  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-010-Q1-E1-H3  
<400> 9811

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ctcccgccac cctgacgacg agcacggtgt ctgctccaca ctaccctagt acaacatggt 120  
gctcagatct gtcattggagg aaacgcgatg caggtgtgat ttttcatac aaagaagctc 180



tccttttctg cttgatgaaa actcacaaga tgctatcgcg ttatcttcta tcttctcctt 240  
gctgcacatt ttccctacct tccaccgagt cagtacttgg atccaagtct ttcttattgc 300  
tacttatttt tattttgcta ctaaattgat gcaggtgcta ccagtgaaag gattggagat 360  
tggttctagt agttgtaggt tcgtttggaa ttcataatgc tcatgatttg caaagcctat 420  
cagccagaac acgttgatgc atagcattaa atg 453

<210> 9812  
<211> 482  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-H7

<400> 9812  
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tcatgccatg ccggacacac tcgtctcgac gaggaactgg ggacaagctc ggggtctacc 180  
aagacagaga ctttcccggt ttccttcggg taggcacgaa aggcacacga ggatgatcat 240  
tatcacaagc atgtccattt ccaacagcaa agaagtttcc aataagcatg catgcaaattg 300  
atcacatcac cacatagaat agcgagttct acgtattgag gtgggtgtcat aatcgtgtca 360  
aacaatacat gcaaaatatt atgccagggt tcagaatgct tgccttcaag gtgtggaaat 420  
gcagggtgca ctccaaaact ttgaaagct ttctcctctc tccaaaaatc ctatttagaa 480  
tg 482

<210> 9813  
<211> 442  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-H8

<400> 9813  
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cggggcacta ccagtacttc ctctgtgtca ctggagacca ctctactcct gttgagtacg 120  
gagaccacag ctttgagcct gtcccgtttg cgatatgccg gctgagagat ttcgtgggag 180

cgattgggga gggcaatgtg atgaataccc cctcgcagca tttcccgtg ccttcgggta 240  
aatccggaga agatttaact gatgattcag aaccagcgga acacaagcct gaggagcgta 300  
aagcttttag cggcgataca gtgtgtgaat acaccgagat tgctgctgca aggggctgcc 360  
ttgggcgggtt ccctggaagt gagatgatgg gcatcatcaa gaagttcatg aaagcaaagg 420  
aacattaacg ccagttogat tg 442

<210> 9814  
<211> 348  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-011-Q1-E1-A1  
<400> 9814

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acgcagtctc atctccggcg gatataaaaa tgtcaatgga gacagccgtg cctcacggcg 120  
catcatgtcc tcgattgaag aaactgagga aagacctggc atccatgacc gggtcagact 180  
catcaaggaa gaacatcgga agatatagac tgagcttaac aggatctgtg atagcatcat 240  
caatctgctc gaaaccacc ttataccgtc atccactgcc cctgaatcca cagtccctta 300  
tcgatctatg ggtgatgact actactcgta tcgtgcccaa ttcattgag 348

<210> 9815  
<211> 437  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-011-Q1-E1-A3  
<400> 9815

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ttctttccac agtgctatca tcattctccac aaaaagaggc tctagaggat gacttgacta 120  
ccaccctggg ccagcaatgc cgacagtgtc aatacacgat ccggagaatc gttgaaactg 180  
caggtgataa tgagggtcaa ctcttcgagg cactgagtat ccacgatgaa ctccagaaag 240  
ttctgtccaa gtacgaagac ctcaaggagc ccatcgctgc agagcctgag ccagaaccag 300

cgatgattcc agtcacggtg gagcctgagg aatcnccacg cgctggtggc aaagacaccc 360  
cctcgaggaa atcagctggg tccggtgggc gctctagcgg cggggatgac ttgcttcagg 420  
atctcgacga catgac 437

<210> 9816  
<211> 455  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-011-Q1-E1-A4  
<400> 9816

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tgccggaggc caccgaggtg ggcataaccc accagggcgc gccaggtgg gttgtgcccc 120  
cctcgggcac ccctcttgta ttttcccagg cgcgcctagg tgggttgtgc cctcctcagg 180  
catccctctg gtatttcttt ggcccatctt gtgtctactg gtcgagaaaa atcaccaaaa 240  
agttttgctg catttgact ccgtttggta ttgatttccc acgaagtaaa aaacaagcaa 300  
aaaaagaaca actggccctg ggcactatgt caataggta gttccaaaaa ttgtataaa 360  
gttgctataa aatgattgta aaacatccaa gaatgataat ataacagcat ggaacaataa 420  
aaaattatag atacgttgga gacgtatcag cattc 455

<210> 9817  
<211> 136  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-011-Q1-E1-A5  
<400> 9817

gttagtccca aaagtaatat aaaagtgcct agtaaagccc attaaacatc taagatggat 60  
aatataatgg catgaatact tcataaatta tagatacgtt ggagacgtat cagaagcata 120  
tacccaaacc tgcccc 136

<210> 9818  
<211> 472  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-011-Q1-E1-A6

<400> 9818

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ttggaggctg cggtgacgta tgcgacgctc gtctagtga gctactgccg atggtcgagg 120  
catcgttggc agtctgcgcc atcaagtctg ggggtgctcag gggggaaccc cagatctggg 180  
tcttccggat cggatgatga tggcgttcta tcactttccc ttctgggggc atcgtcttgg 240  
agcaagtgct ggctggaggg atgggtggagc ggtgtttcat cccaaacttt gatggcggcg 300  
gagatcgatg gcatggcgct gtggagactc ggcgtccaac atgcggagat gggctcgcgc 360  
aagangaggt tgctgtctgg cgtcatggtg acgtcgatgg cagaatggcc agacagggta 420  
naagccctaa tatgatctng agacatgtgg aagatggcgg ccacgacaca cg 472

<210> 9819

<211> 438

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-A7

<400> 9819

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tccataactca gcgaaaatag ccgaacgaag ttgtagtga gcggatgaag gttcaacata 120  
gcgtggatgt catcaaaccg caggacgatc gtacccccga tggagttatc cacaaagccc 180  
ttgccctatg gcaccttggc cgcgaaaacc gggtatgcca catccttctc tccgagacgc 240  
cgcttctcca aagaaagaac actgtcatgc agactccgca tagcaccggt tgcagcattg 300  
agcatatttc tcagtagcat cagcctaccc gccacatgca ccctcctega gatatcctca 360  
ggatgaaggtg gccatcctg agcacgaatc gtactcgggt cgggctggcc cgcaaccttg 420  
ttagtctttc ttttgcgt 438

<210> 9820

<211> 471

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-B1

<400> 9820

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atagtcatca tagtggattg ctgtagagtt ttatgtacat gagattggat tgttaaactc 180  
ctttcacacg ccaagtagat aaagcggagc aaattattac atccgtttga atatctggac 240  
tgcgcttatg tattttctga gacaacttat gtttgcttct cacactaatg attttgtttg 300  
tttggggaaa caagttacca tagccgctt gtcacctaag tttgctctgt attttgatga 360  
agccttgggt tcagcaagaa gttagaggag gaagaagtaa agcgagcaat agagaatgga 420  
tggattaaag actcaataag agatgttgaa gaaatctgct gatgcattta t 471

<210> 9821

<211> 467

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-B2

<400> 9821

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gcctcactcg agctgccaag gtgttggagc agctgagcgg gcagtcgcca gttttctcca 180  
aggcgaggta cactgtcagg tctttcgga ttcgtcgtaa tgagaagatt gcctgctatg 240  
tgacgatcag gggtgagaag gcaatgcagc ttctcgagag tgggctgaag gtgaaggagt 300  
acgagctctt gaggaggaac ttcagtgaca ctggttgctt tgggtttggt attcaggagc 360  
acattgatct tggcatgaag tatgacccat caaccggcat ctatggtatg gacttcttcg 420  
tggttctgga gcgagctgga taccgctct cccgccggcg ccgatgc 467

<210> 9822

<211> 378

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-B3

<400> 9822

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 tgagcatgcy acaagtacag gtcacgatt cgtaagacc tcaggtgcga ttgggatgca 120  
 aatcaactca ttgccatctc gtgcacacac agctttgcat cacaaaatac tcagtgtcgt 180  
 agaagttaat tgtagtcata gattcgacac atttgatcat ccaaacaggt atgtgtgtca 240  
 ataggtgttc ctttcacgc ttgatatgag gatgatctac gtcaaggag gttacgtact 300  
 tgagaagtct gcttctaccg acaaaaagta gtcgccgac tagaggattc aagcttaggt 360  
 acacttgcat tcgacctc 378

<210> 9823  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-011-Q1-E1-B6  
 <400> 9823

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 agttcatggc tctgaaccgt ccaaactagc agaagacaga tacaccagat aagaaacctg 120  
 ctcttgtcca actgatgtca cttacagtta cattgccgcg gcagtgaaaa gaaaaagaag 180  
 ttatatccct ggggtccag aataaccgac gatgatgcc tgttcccggt tccgtgattc 240  
 gtagtgcaaa ccaatcgtg aattgttgtt accttagatg tgggtgtatc aaatcgcaac 300  
 catgacagac atttgttgta tcttgattgt gtgtgtaaag gctgggcgca tttgcccggt 360  
 tttcataaat cattagagat gtataaccgc agttccatcc aaaanaaaaa aaaaaaaaaa 420  
 aaaaaaaaaa gcggccgctc tagagga 447

<210> 9824  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-011-Q1-E1-B7  
 <400> 9824

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tcaagttcat ccagaccgtc ttccccgaga actcgtagcg cctcggccaa ccatcactcc 120  
ggcgaacgct ccagccccag gcatggcatg atcttccgcc actggcgggc ctgtgtacag 180  
aacgaggaac gagggcatcc gcagagagtc ttctggaggg ctggattatt ttcaagcata 240  
agcacaaacc atgtctttat tctgggaata aaggtggcat ggctgggtta tggaggatgg 300  
agaatccacc gacgtcncgc tgtggaagag catctgactt tctgcgcgaa tatatgtgtc 360  
cgtcgagatc angagcaatg tgctgggcat ctggaagatg tcgggaataa attcttggtc 420  
tacttttggt gttcg 435

<210> 9825  
<211> 449  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-011-Q1-E1-B8  
<400> 9825

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cccaagaacc ttgagcccaa cctccgcac cttgctcaaa agtacaatga gaacaaacta 120  
gtctgcgcga ggtgctatgc acgactaccc accagggcca ccaactgccg taagaagaag 180  
tgtggccata acaatcagct aagggaaaag aagaggttta tgtccaagtt tgccaacgct 240  
tcctaaacgt tggaaatatg ctgaatcaac cgtctagcgt catatatatt ggagtttaag 300  
ttctgtccct tgtttgaagt catgttgat ttcgctgaat cgtctagcgt cgtcatatat 360  
agtggagtct aagatttgc cagttgatag tcctggttga ttttgaacct atgtatgctt 420  
tggaatatat tatctatcan atatcctga 449

<210> 9826  
<211> 425  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-011-Q1-E1-C1  
<400> 9826

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agcggcggtg gcacgctcac tcacggtcc gcctaagttt tttctttcat ttcacggttt 180  
ggcgggtgac acattgagca gttgacccgt ttgatcagtt gtctagttgc atgtttgact 240  
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ttcttttaaaa agttcatgaa atcaaaaaat gttcatgcat ttgaagaaag ttcacaattt 360  
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<210> 9827  
<211> 454  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-011-Q1-E1-C2  
<400> 9827

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actactatta ctccacacat cgaccgactc ctgcctacat ctagagtatt aagttcataa 180  
gaacagagta atgcattaag caaggtgaca tgatgtagag gtatagactc aagcaatatg 240  
atataaactc catcttggtta tactcgatgg caacaatata atacatgcct tgcaaccctt 300  
tctgtcactt ggtaaggaca ccgcaagatt gaacccaaag ctaagcactt ctcccatggc 360  
aagaaagatc aatctagtag gccaaaccaa actgataatt cgaagagact tgcananggt 420  
actcaatcat acataanaga attcagagaa gatc 454

<210> 9828  
<211> 468  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-011-Q1-E1-C8  
<400> 9828

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gtgcatcatg tttaaatttc atttaattct gaaatgagga tttgtgaaac cctcaggatc 180  
atctctgaaa atgacccaaa taaaaattgt tccaaaaagg tccaagaaaa tgctcatggt 240  
gctctctgaa aatattggac agagataaaa atgaaaccaa tatTTTTtagt agtcataag 300  
tctttatttt gggcatttgg aattaatgca taattatttg catttgatat atatttggtta 360  
tatacataat atatgtccaa aaattatgcc atttataaag gagctctgga atatataact 420  
agcctccata aaaattggca taagaaaata aaatgggtta gtattttt 468

<210> 9829  
<211> 372  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-011-Q1-E1-D1  
<400> 9829

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tggccagtcg tgggctggat atccaaactg ttgatcttgt tatcaactat gacatcccaa 180  
ggtttccacg tgattatata catagggttg ggcgaactgc aagagctacc aggggagggc 240  
tctcaatatg ctttgtgacc cagagggata tatgtctcct acatgagata gaagatgacg 300  
tggggaatcg attcagtgc tatgagtgcg acgacaaaga agtcaccaaa gatattacaa 360  
aggtattcaa ag 372

<210> 9830  
<211> 479  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-011-Q1-E1-D2  
<400> 9830

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atctgatcct ttccatgggt atgaaactga aactgttgtg gcacatctta ctaaattgaa 120  
tgacatagcc acccttttta ctcatgatga gaaaactcac tattacttta ttctcaaatt 180

atttcctttc tcattaaagg gtgatgctaa atcttggtat aatactcctg ctcttggttg 240  
 tgtgcgtagt cccagggata tgatttatta cttctgtgaa aaatattttc cagctcatat 300  
 gaaacaagtt gccttatagg aaatatttaa ctttgtgcaa actaaagaag agaatctccc 360  
 acaagcttgg gggaggcttt gccagttact tagttatttg cctgatcacc ctcttaagaa 420  
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<210> 9831  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-011-Q1-E1-D3

<400> 9831

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 ggaaaagatg aaggccaccg aagtggcaac cacaggcccg cccgaaggca aagatcatcg 180  
 aaagccggag aggtacttcg atgacgtcct agaaggagcc tgagtataaa aggggtcaatg 240  
 ttctaaggac gtaatatctg attgaatgtt ttcaggttgt acaaactttg tcatgaaccc 300  
 atgttggtat atatctatgt ttgcgccttt tgttcaagcg atttttcctc ctgtgcggcc 360  
 atttattgta ctacatgggt gtttgacata acgcgtgacc acactttatc caacgtcttg 420  
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<210> 9832  
 <211> 479  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-D4

<400> 9832

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 ggcaataaac agagccactt tgcaacaatg caggaagcgg ttaggaagga tgtggagagg 180  
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tcagaaactt tgtggcagct gatgacatgt tgtgctattc tgcacaatat gattgtcgag 300  
gatgagggtg atggtgtagc ccaaaccat gatttcgaag cacctagaga acaagttgaa 360  
atccccgaag atcaagatgt agctcaactg atgaactttc tgcaaatgca tcagaatctt 420  
caagatcagc aagtgcatat gcaactactc aatgatcttg cagagcacat gtggaccca 479

<210> 9833  
<211> 447  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-011-Q1-E1-D5  
<400> 9833

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ggtcgaaatg ttccgtatga ttgaatctgc agccgcctgc attcgacact cgtcacaaa 120  
gaggcccaga atgagccagg tgggtcgggt cctcgatagc ttagcggata tcgacctaac 180  
caacggcgctc cagccagggc agagcgagct cttcaacgtg gcaaacacgg cggacatcag 240  
gatgttccag cagatggtgc agggcaacca ggacgacagc tccgccttca gccagtatag 300  
ctggatcagt cgcagtaggg ccgacgcoga ggccacctcc tcaaactccc ggatcttatg 360  
accgtctttg tttccgtgct ccacatgtac gtagccattc ttctcgacc actgattcgg 420  
ccgggctgtg ttatcgacca tcgaaaa 447

<210> 9834  
<211> 452  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-011-Q1-E1-D6  
<400> 9834

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tggcatcaga ggccataatc aagcagatcc ctctgtctct tggccctggt cttaacaagg 180  
caggcaagtt tccactctg gttagtcacc aggaatctct tgaagccaag gtcaacgaga 240  
caaaagctac agtcaagttc cagctaaaga aggttctttg catgggtgtt gctgtatgca 300

acttgtcgat ggacgagaag cagatctaac agaacatcca aatgagcgtc aacttccttg 360  
 tgtccctcct gaagaagaat tggcagaatg tgatgtgcct gtacgtgaag agcaccatgg 420  
 ggaagcgtgt acgtgtgttc taagtgtgtg cg 452

<210> 9835  
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 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-011-Q1-E1-D8  
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 tccagatagc aagcattgtg tgttctggta ttcaacctct tcacaatctc accttgggtga 180  
 gatttatcga gcaaaagggt ggaacagggg agagcatccc gtgggtccaa caacagattg 240  
 atagaggttt cacagctgtt gagaacatga tcaaaggctg tgctgggaag tttgctatgg 300  
 gagatgaagt ccaactggca gatgtattcc ttgcacccca gatttttgct gcggtgactc 360  
 gttatcaaac ggacatgtcg aactatccca ccctcgcgat gctccatggt cagtatatga 420  
 cacaccctgc atttgaagct gcgctcgctg accgg 455

<210> 9836  
 <211> 471  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-011-Q1-E1-E1  
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 gaaatgagaa gagagaagct ttctagggct taagcttagt ggtagtgtcc tacagtcagc 180  
 gtgtgtctctg ataccaactt tgtagcgacc agacctcaaa tggcctgtgc tgctgtgcac 240  
 cagtgtcatc cctggatcag taatgctgac acgcacagta caaatggagg atttataaca 300  
 gagtagcaat cacacactta ttacatcgat atctccaaag agattaagta tgataaacat 360

ggcttaaggc catctaataa cgataacagc agaagacttg gaagataagt gagtccatca 420  
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<210> 9837

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-E2

<400> 9837

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gtgcgccgac atgaagagca ccgtcgatgg cacctgcggc gggccatgca aaaagcactg 180  
atccgttcag ggcttcagtc tcagacgagg ggtgccgcct aaaataaagc tcagatgaga 240  
tgagcagtca tggggcctat gcttctctgt gggtcgtgct atacggccaa caatatgtat 300  
actgctatcg tcgtgtcttg tcaatgtgtt tctctctcgc agaaagggtg tggtgcttgt 360  
acttgtgttc acctatcctc cgtgaataaaa cacatgtgat gattgtgtgt gcct 414

<210> 9838

<211> 342

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-011-Q1-E1-F1

<400> 9838

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ttagaggcat aaccgcattg tggttgttac aagttggtaa tcagagccat ccccgactta 180  
ggagcccccc gcttgatcga atcgctgacg ttgttgagtc tagaaaaaaa tgctttgagt 240  
cttaggatta tatatatcgg agagtaggat tctttttact cctcagtcnc ttcgtcgtc 300  
tggtgaggcc cctgacgtag aagttttgac tctcctctcc ac 342

<210> 9839

<211> 455  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-011-Q1-E1-F3  
  
 <400> 9839

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gcgaggacgt cgcgccttag caatcgctaa accaactctg agaggttatt gaccacgccg  120
gatcacgata aacctgacca cgagggtctg tttcctgcga gcaaacgaag aacaagcaag  180
aaactaagat tgcaatctgg atattgtgaa tataagatga aagctttatt gatcaagggtg  240
gggttctgtg acgcctttgt ctggtcgttg aacacaaacg agtacgcga agttgcagct  300
atggcgaact ttaatctaaa caaaacccca aagtctaaac ggtgccctaa gggctgtata  360
tatggaggaa gagaggggga atttcgtggc ccttggtgga ngggtccaaa atcaacccta  420
tctattgttt tcccacacat acggactcta aaaat                                455
  
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<210> 9840  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-011-Q1-E1-F4  
  
 <400> 9840

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catctccatg ggccatcaaa cagaggatgt tatcgggttt tgtgttgact tcattcctgg  180
ccttaagaag atatgtctcc ctaaategtg gtacgagggg agactgactg gaaaaggcac  240
tcttggaagt gactcaataa tatgcaggga caaatattct tgggtctcaag cacactacac  300
agttctatag aactctacct tggcgacccc gtatgtcgat gaacacaaga acagtctgcg  360
ctccaaacac ccggagcagt gggacgactg gattacatgt gaacacatca ggaccttcag  420
cagttggttg gaaacacgtc tc                                           442
  
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<210> 9841  
 <211> 401

<212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
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<400> 9841

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 ggtgccccgc atgtgtacga tggcttcctc catctgttgg tggcggtaca cgaggccgac 180  
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 aaggcggtgg ctgccatcgg tcaagtgtgg ctatcgagg ctgcccgctg tgtttcgttg 300  
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 ttggatcgga ccataacaac gtgtctcaat cctctgactc t 401

<210> 9842  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
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<400> 9842

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 tttttcgtag tttagatcga gtctgttctt catacctata gtccacgaaa aagccaaaaa 180  
 aaattagggg tagttcatcc catccgaacc aatctgagcc ttgcataatc ttttctgtat 240  
 ttgctttgtt gaatttgagg ttgcatcgtc gtgttcagtt gctgggtctta gcgtctagtc 300  
 ttttagagtt tcgagttctg ttcacaagtt gtcacgccgt cgccgcacca tcatcatcgc 360  
 ncttgccatc taccaacacc gtcgccatc cgtatccata tnacaccacc aatccgctgt 420  
 catataccaa caacatatat 440

<210> 9843  
 <211> 458  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-G4

<400> 9843

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cgtagtttag atcgagtctg ttcttcatac ctatagtcca cgaaaaagcc aaaaaaatt 180  
agggttagtt catcttatcc gaaccaatct gagcatttgc ataataattt ctgtatttgc 240  
tttattgaat ttgcgggttc atcgtcatgt caagttgatg gtcctagcgt ctagtacctt 300  
agagtttcga gatctgttca caagttgtca cgccgccgcc gcaccatcgt catcaccgct 360  
gccatatacc accattgtca tcaccgctgc catataccac catcatcatc aacgctgtca 420  
tataccacca tcgtcatcat cgctgccata taccacca 458

<210> 9844

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-G6

<400> 9844

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gtggcacttt cgcagtggc aagagcgggg tacgtgttaa tggatccact tctcgtcgtc 180  
gtctcgctta acggtgttac gttaccgcgc aagaagattg tcggtcacc atgactacat 240  
cacatctgtg acgcccacta tatcagtcac ggaaatggac atctctatga gtcgaattat 300  
ggatcgtca ctgggaactt ccaggacagc acacgtataa ctatcttgca tcagacatac 360  
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<210> 9845

<211> 370

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-G7

<400> 9845



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catggtcgta gactcaactc atcgaggcgg tgaacaaagt tggatgatagt tgtgacatct 180  
caaactacac catcgacttg ctgcattcag gcgacgggca cgtaaatgac tacggcaagc 240  
cagggcataa gtatagcggc agcatgtgga tgagattgat ctgtacctag tgttgacagca 300  
agctgcagct ccagtgtgat aagtatagct gcattctgat caagccgtac cacactgagc 360  
agatgcacat 370

<210> 9846  
<211> 473  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-011-Q1-E1-H1  
<400> 9846

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cagttcagat attacgctta agctaaaggt ctgattgtac tgtctagagg tggaatggct 180  
aagctctctt tatggctcctt tttgttgaat atcttgcaaa tggcacacta aagtgcagga 240  
aattattagg tgtgtgggta tcaatccagt atgttcttat gtctatggat ccgggaaatg 300  
ttcacgcttt attgggtttg gtcaacaaaa ttttaggtgt acatgctttc atcttgaata 360  
tatgtaattc ttaagtaata ctacttctcg gttaattcat tgaagtaatg atacaatcaa 420  
ttggacgctt ctctacagtt atgcatctag cgggaaaatt gttgttttca cat 473

<210> 9847  
<211> 483  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-011-Q1-E1-H2  
<400> 9847

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 accagaggga atcggtgccg agcccgaagc ggatcggggc ggctcggagtc ggggaagaag 240  
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 gggtcgaagg cgagctcgag gccccttttt atagccggtc cgaggcgggtt gccgagaacg 360  
 ggataactcc ggcgatgatt acggtgaggc agtggtcgaa caagggttta agggtcgggg 420  
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 act 483

<210> 9848  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-011-Q1-E1-H4  
 <400> 9848

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 gggagttaa tcagctcctt gttaatgcag tgaggcagga aatcaagaat ctgtacaata 180  
 tcaacgtccg aaaggctcgt ctgatgggcc ttctcctgt tggtgtgcc cctcacttcc 240  
 tctcagacta cggcagccaa aatggggaat gcacgacta catcaacaac gtcgtgatcg 300  
 agttcaacta tgggctgaga tacatgtcca gcgagttcat ccgccagtac ccagactcga 360  
 tgatcagcta ctgtgataca tttgaggggt cagtggacat actagagaac cgttgacgct 420  
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<210> 9849  
 <211> 472  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-011-Q1-E1-H6  
 <400> 9849

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tgaaatccta cataaaactt gtggatcact gaatatgata tgtttgattc cttgcaatag 120  
 ttttgcgata tagagatgat aatatgtggg aagtactagt aaaaagttgt agttagtaag 180  
 aatattggtg taaagggtttc tgattcccga agcatgcacg tatagtctct agttatgcta 240  
 tgaagttgga gcatgattta ttattgattg tctccttatg attggcggtc ggggacgagc 300  
 gacggtcttt tcctaccaat atatccccct aggggcatgc gtagtagtac tttgcttcaa 360  
 ggtctaataa acttttgcaa taagtatatg agttctttat aactaatgtg agtccatgga 420  
 ttatacgcac tcctaccttt ccgcaatttg ctagcctcta cggtagcgtg ca 472

<210> 9850  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-011-Q1-E1-H7  
 <400> 9850

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 ctggctatcg ggtgttgaca tcaatactca acagagtttc gaagctttga accccagggc 180  
 agttgccgtc gtgatcgacc ccatccagag tgtcaagggg aaggtgggtca tcgatgcatt 240  
 tcgtctcatt aaccctcaga ccatgatgct tgggcaggag ccacgtcaga caacatccaa 300  
 tgttgggcac ctgaataagc catctattca ggctcttatt catggggtca atagacacta 360  
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 tcac 424

<210> 9851  
 <211> 332  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-012-Q1-E1-A1  
 <400> 9851

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 tgctactttt cttgcccatt cttgttctgc gtatagcagc taaaaatggg gatgggatgc 180  
 accttctttg gtgcttatca agaaaactca tcatggttgc acaacaggat ggagccaaag 240  
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 tggcaaatgg attctgagga ttctggttgt tt 332

<210> 9852  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-012-Q1-E1-A2  
 <400> 9852

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 ccctgccac attgagctga tcttgtcaga gaaggaagag cctgtgaaga aggaggctga 180  
 taacgtcgtc gcaccaagga aagctatcta agccaccgga atggatgcat tcgtccaaca 240  
 gtcttagttg tagttcttct caagtacctt tggtggcagt gtttgttgcc tccttgatgt 300  
 ttttgttacc aacattgagt aaggatttgt taaggttgat gctatccttg tgattgcgag 360  
 tggcttttat atgctaaaac agtttcagat atttgagcat tagcacacca gaacttattt 420  
 ctctaaaaaa gaatgtcggt aaagaagaaa aaagcgggcg 460

<210> 9853  
 <211> 477  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-012-Q1-E1-A3  
 <400> 9853

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 ggaggctgag aagattgtcc agatcaagcg tgccgagggg gaagcagagg ccaagtacct 180  
 gtctggcctg ggtatcgccc gccagcgcca ggccattgtg gatggcctga gggacagcgt 240

cctgggcttc tcagtcaatg tgcctggcac cactgcaaag gacgtgatgg acatggtgct 300  
gatcaccag tactttgaca ctatgaaaga ggttggcgcg tcctccaagt cctcggcggt 360  
gttcatcccc catggccctg gcgcggtgcg cgacatcgcc acgcagatcc ggcacggtct 420  
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<210> 9854

<211> 482

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-A4

<400> 9854

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agcacgatca acctgaccac gaagggtctat ttcttgcaag caaacgaaga acaagcaaga 180  
aactaagatg gcaatctgga tattgccaat ataagaggaa agctttatta atgaagggtg 240  
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tggcgaactt tttatctaaa caaatcccaa agtctaaacg acgccctaag ggttgtatat 360  
atggaggaag aggggggaat ttcgtggccc ttggggaagg ggtccgaaac caaccctatc 420  
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at 482

<210> 9855

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-A7

<400> 9855

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atcacccctc tcctgtaccg gacggaaaga ggtgcgggtc cggaggccta ctgtcccgac 180  
ctgtggtgca cgccgcaagc cgggatgcga aagatcgtag cagcagcgca gtgctcagga 240

accggtggcg agaggaggag gtagttctgg tgcgtctctc tgagaggagc gacctccctt 300  
 ttataggcgc aagacaagga ggcgagaggc tgcgccggga gccaaggaa acacgggaga 360  
 agagtgacct ttcatagacc cgtagtgcgt tgaagaaatt tagacatcgg ttcgttccca 420  
 caggcaagcg gcggaagacg aacgcgccgt gg 452

<210> 9856  
 <211> 167  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-012-Q1-E1-B3  
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 ctgtctcctg tggggggcat caacagatcc ctcacagggtg tctttcc 167

<210> 9857  
 <211> 471  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-012-Q1-E1-C3  
 <400> 9857

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 ttttatcatt ttcaaaacaa aacaaaagaa cagacttgaa aatttcttgt aaaaaatagc 180  
 cacttcacat gaaacttgca tggccttctg gcacatatgt gaccatttca ttccagttga 240  
 gcttatgggc taggggaggg aacagagagc tcttattgga tgcccccggtg cgtaacgcta 300  
 gatagcaaca aatccatatt ataagtgtcg tgccttgata agagccctgt atggacaatg 360  
 gacatttttg taatatatgc tgaccaattt ttaactacac actgaatatt tttgtgatat 420  
 gcaatgaata atatttaaata acacattgaa catttctgtg atatacgctg a 471

<210> 9858  
 <211> 417  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-012-Q1-E1-D4

<400>       9858

cgccctgcccg taccgggtccg agattcacgg gacgacctcc gtgacgtgac tcacatgctg   60  
tgtagcacca ttcgacgggc cgaccacaca ctgtcaggca caattcacta tgacacgaca   120  
tggtatctca aggatccgcc tgccagtgag aaacccgcat gtttgcacgc gcgatagcac   180  
tgtttccgag atccgttggg gcctcatctg ggcacgcatg ttacgtccag tggcatagat   240  
aacgtcaact agccgcagtg aacggggaac gcgggaatgt ttgtccgctt cataatgcc a   300  
gctacactga ccgtaaacgc gacatcatga ctcatcagc cagtcacgca gattgatttc   360  
ccggacaatt tcattgtgca gtactaaacg ccaactgact tttatgacac aatataa   417

<210>       9859

<211>       449

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-012-Q1-E1-D5

<400>       9859

caggtccaga actcccgggt cgacaggcca cgtgaacatc aactgaccc aggccggcac   60  
cgttggattc ctctgcttt aaaaaaacac ctataatttt attcatgctc gtaacaatta   120  
caggtacatt gatttgcac taaaatcgaa gaagacataa agtaattcct ctgactaaga   180  
attataacga agacttgaa acagcttctg ctagaaaaat atatttcaa gagttccgta   240  
aataggctgc aattgactgg agcaacgatg ttgtcactca ttcacatgct atagtaccag   300  
ccaagttttt ttacaaccg gtttgtaaca ttgaggtctg ctacattacg tgtggttggt   360  
gatctggtgc tttggtcttt tggggactta gcacgatgat tctccgattg tctaatagaa   420  
taagttgtcc ccggctccgg caaaggaag                                       449

<210>       9860

<211>       467

<212>       DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB31-012-Q1-E1-E4

<400> 9860

cgectgcccc taccggtgcg aaattcncgg gacgacgagt gactagccac ctaggtggtg 60  
atcctggcca tggagggccc tatgtagata gacaggcttc gagaagcctt ctttctttct 120  
agtgtctgta ctcagactag ttgcttcgcg ttgtgcttgt atgattgtat ggcttgagtg 180  
tcgggtcttg tgaccctat ctgtatgaac atgttatgta tggctctctg gagcctttaa 240  
ataaagtact tgagttgtag agttttgttg tgattccatg ttgtatgtac tcacatcggg 300  
catagttgtt tacccttggc agcctttctt atggggaaat gtagtctagt gttcctcgag 360  
ccatagtagt ccgctacaac ccggttcacc ggagtcctgc ttgcctagca ctactgctaa 420  
ggacacttga ctggccggca tgtgtttcac gtcactccta tgtctgt 467

<210> 9861

<211> 485

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-F1

<400> 9861

ggtacgctg ccggtaccgg tccgaaattc ccgggtcgac acatctttaa aatgacatgt 60  
caaacttagt ttttgaggct atgttgcat tgtagttctt gctctgttaa atttgaggct 120  
acgttgcat tatagttctt gctttgttaa atctgagatt gatgaaaatg gtatatagaa 180  
tgcaaaaaaa attgtagcca cataatgatg ttgtatggta ccccgagcaa gtaatatgct 240  
tgaatcaatg tgacttttcc tgattataat tatcttatag tatcgtgatg ttggcaggta 300  
tatgcgagtc cggcagggcg gtggcgatcc tttgcaagca cgaatggagc gaagacttgc 360  
tgtgggctga gctgctgtct ggtcaaggaa gaaagttgat gtctttactg gcgaaacaaa 420  
ttgctgcggc agcaatgctt gtgagcttat gatgtgctc tagtttagtt tgtcggtttc 480  
tgtga 485

<210> 9862

<211> 479

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-F2



<400> 9862

acgcctgccg gtaccggtcg caaattcccc ggctcgacaaa ctccttgctc cccatcgaca 60  
gaacaacaag gtccaacat acctcattgt atatattttt caacacatgt atgttttttt 120  
aattcacaat tgacattttt cttatatattg tgcaacatct ttttgataga tgttgaacat 180  
ttttgaaaca ctatttcctc ctccaagatt cttgctttcc ttctacaggc tcacgtatga 240  
aaaatgtgtg cttatagag ggctaggcca gaaatacata gcatagataa caagggtttc 300  
gccaaagtag acgtacaagc gaaacattcc acttatcgaa gaaggtaggt atttcaagtt 360  
caagaagtag gcatcgatcc caagaatgt agtgaaaatc tagactagga ggaatgcac 420  
aaagccaagg tcaagcaaaa ggttggttga tcgttacgtt ggtcggaagt tatttcctt 479

<210> 9863

<211> 481

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-F3

<400> 9863

cgctgccgg ctaccggtgc agaattcccc ggacgacctc gtcggtttcc ttgttgggtc 60  
tcacactcac tctcaccgg ctgggtccgt aagtgaggtc gtggcccacg tgctagtgtc 120  
accaccgttg gggctgatcg atccgtccaa atccaaaacg ctagecggaca gcgctaccgt 180  
ccaccgccgc agatcaaatac tgtgctagga aaatgcctgc cccatctatg tgggtcggtc 240  
gccggggcgtg gctgacagcc ccaccaataa tgcacccga acttgattag actgcacaac 300  
gagtgagcag atactctcca aattcttgaa tttcaggag ctggtggatt gccaaacaac 360  
ccctgagatt caagctatct aatcaagctc tctcgttaa acaagtctgg cggatcatca 420  
cggccccgaa ctcgctatgt gctagagctc taaaggcacg gcatttcccc ggaaaagata 480  
t 481

<210> 9864

<211> 470

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-012-Q1-E1-F4

<400> 9864

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aatatccacc ctttactctt tcgtaagtac gatggagttc ccgaagaaag gatgctgact 120  
tcatcatgat gacctgaaac agagaaatga agacatcaac gtaatggatc gacctcttta 180  
agaagggcaa ccaagactga gaagacctgt tagaatttcg taacaaaatc ccttccccctt 240  
actccccctc taaatctcgg gacgagattt cttgtagtgg aggagaattg tgacgcccta 300  
ataattaagc tacagtaaac ctttggttaat gatgccacgt cacctcgggtt acagttgcta 360  
atctcacgtt agttcaaagt ttgactcata ttcaaatttg aattatagcc aaacagtaaa 420  
ggttttcaaa tattaataact aaaatgttcg gggtgtgcc aataatgcat 470

<210> 9865

<211> 456

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-G2

<400> 9865

acgcctgcag gtaccgggtcg caaattcccg ggacgacatg aagatggaac atgatgcaca 60  
gttgctcttg gccaggacca gggcgctgac tgggcaaagg agacgaggaa ctctcaaga 120  
attaattggt catcgcttag tctccatgtc aacagcatgg cgcttcctcg aaggaaacgt 180  
cacccgatga atgatctgct ttggtgactt ttggtcgaag acgtgagata gaattataga 240  
aatagaatgg atgttttcac aggcaaaggc atggcactca gtcgatacgg tatggatgca 300  
acattttctt tttgagaatt tagtagagta gattattatt ttcttgatta taaaaatat 360  
taggttggtt tgtctcggtg gacgctgatg tggaaaaact gaattactac actgccaac 420  
gagaaggaag tgggtggaata taccggcgaa cgggacg 456

<210> 9866

<211> 475

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-012-Q1-E1-G3

<400> 9866

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gtattcacat ctagcagcat ggcagcagac cagttttttt tcttttcctg catgtgtttt 120  
tcttttcttt tttattttct ttagtatgga tctatctctc tgatcaagca agaagagatc 180  
ggcagctcca gcgacatgac gagccgtttc cgggttttta tgaagggaac tatttgggggt 240  
cgcgcggaag caaaactagc tagggtttat tagtgctgct ctagttccgc ttgctattcc 300  
tttcgcttgt tcgtttgttt cttaaggat tttattatca aggttgtaag gctggggatg 360  
tgcagctagc ttcagattca agcctgccgt ctgcctgct tgtacattgt aaaacagaac 420  
cgctgctctc cagtgactga atgattataa gcagctactg tantggtatt tgggg 475

<210> 9867

<211> 461

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-G4

<400> 9867

actcgtggga cgacgtcata cactatagtg agtcgtatta agaagattcg ttaggatttc 60  
gtaaccaa at cccttcccc ttactccgc tcctaaatct cgggacgaga tttctttag 120  
tggaggagaa ttgtgacgcc cgggtaatta agctacattg accctctgct aatgacgcca 180  
cgtcacctcg tttatagttg ctaatctcga gttagttcga aaccaattca aattcaaatt 240  
aagaaaaata ggcaacaat aaaagctttc aaatattaaa actaaaatgt tcggagtga 300  
ccaaatattg catagataat tatgggggaa aaaccacaca tgcataaaat gtttaataa 360  
tatgagatgg gtaaaacagc agcaaaacaa ttatttttaa tgtttttaa tactaaacaa 420  
atgttaatct agtttatata atcaccaaac ttttttagagt a 461

<210> 9868

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-G6

<400> 9868

cgccctgccag taccgggtcca gcattcccgg gtcgacatgt gtcacggaat gcactctctc 60  
aatgaaatca gtggctctgt tgtegctggg ttccattatc catccatagc aggtgccttg 120  
gctgacgaca acatgcttgg catctgcttt gatgtctgtg atgtcgttct gtaaattgat 180  
tctaatacaga tgggtggcgg ttaggtcatc ccaacagtca tcacggacat ttatccttct 240  
cagctcactg ctaagcccac gttgctgcat cctgtatacc tgctgatat acaagcacca 300  
gataatgcac ttggcggtag ctaagggtgt cttaatcata agataagagc acatgtttga 360  
cgacatgcat atagctgtta ccccgctgta caacatcgac gcttacctcc cgggtca 416

<210> 9869  
<211> 473  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-012-Q1-E1-H2  
<400> 9869

cgccctgccg taccgggtccg aaattcacgg gacgactctt aggcgatgct cagccagtca 60  
cctgggaaca cctggcatgc cagcgggctt ccatgcaaaa atgtcccagt tctcacggag 120  
gaactggatg agcgcttctt cctattttgg gtcgagtgtc acagccccag atcagccctt 180  
gtttgttttt gcttttagcat ccatgcaaca tgtttaaatt ttatgaaatt tgaaatgggg 240  
attgctcaaa ccctagcatt aaaggaattc actaggttca cctaaaatac tttcaagtaa 300  
gtccaaatgg ctttcaaaaa tgttcatgat ttttgacaaa ggtgaaaaac ctctaccaa 360  
aatgatgcca atattttttg gccattatgg atttttgaat aatccatatt gtatttgtat 420  
tggggcatth aaatactatt aatattttta aatgctccaa cagttctgaa aat 473

<210> 9870  
<211> 450  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-012-Q1-E1-H4  
<400> 9870

gggacgacga ccaactggtca actgatccat aagcttggag gcattgacaa gcgtgtgatc 60  
gagaggttcg agaaggaagc cgctgaaatg aacaagaggt ctttcaagta cgctgggtg 120

cttgacaagc tcaaggccga gcgtagagagg ggtatcacca tcgatattgc cctctggaag 180  
 ttcgagacca ccaagtacta ctgcaccgtc attgatgccc ctggtcaccg tgacttcac 240  
 aagaacatga tcaccggtac ctcccaggct gactgtgctg ttctcatcat cgactccacc 300  
 actggtgggtt ttgaggctgg tatctccaag gatggccaga cacgtgagca cgctctcctt 360  
 gctttcactc ttggagtga gacagatgac tgctgctgca acaagatgga cgccgccact 420  
 cccaagtact caaaggcgcg ttacgaagaa 450

<210> 9871

<211> 462

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-H8

<400> 9871

cgctgccag taccggtcca gcattcccgg gtgcacacag gaggttttag tattccctgc 60  
 atgattacca taacagatat atttcaagca atgaacataa tcaccactca ccatacctca 120  
 tcatgccata ccggacacaa ccatctcgac ggaggactag agacaagccc gtgtctaccc 180  
 aagacagagg ctttcccga ttccttccgg tatgcatgaa aggcatacga tggtgattac 240  
 tatcccaacg tatcaaattc caatagcacg gaatcatcaa tatgactta tgagtatgtt 300  
 catatcatcg cataaaataa tggaaactcc gagacgatgg gtgttgtaac cgtatcaaac 360  
 aacacacgac aatattatgc cagggttcag aatgcttgcc ttcaagttgt ggagaggcaa 420  
 ggtgcattcc agaacttttg aaagttttct cctctcccca aa 462

<210> 9872

<211> 379

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-A7

<400> 9872

gtcgacaggg ctgctcaagc ggcagagcag tccagcagcc gcagcggacg actgaacgtg 60  
 tcgcacccca ccgcaccata caactataat aattcttcca cttcatgagc cattggacta 120  
 ctgggaaata tgtttagata ataagcaagc ctttagatga gaaggcagat cataatagct 180

gagcaatagt atcttttttt ttcctttcaa actagcacct tttgtaaccc cacaacccat 240  
 agcattgagc aagcacaacc aatcattggt tgctctatct gattattact aacccaaata 300  
 ctagctatag taatgatggc taatggtgca tctccagatt tcttcaaaat agctctcgct 360  
 acttacgcca tttttcatg 379

<210> 9873  
 <211> 467  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-013-Q1-E1-A8  
 <400> 9873

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 cacatgtgtt tatcaatttt ttagttgtga ccaaactttt cgtcctcact tggattgttg 120  
 ccaacctttt agcatgtcgg tggctcctac caattatagt ttatttgtgt agggaaaatt 180  
 ggccaactct tggagtacat aaaacattga tccaaatttt ggctacccaa aattttggtg 240  
 gtgcaacctt gggctcaa at caaacgcacc ttgaatttct cacgcaacc aggtgggacc 300  
 tttgggaccg cttggatttg atcaccggat gcaagacaag atgaatacca ccggaatcta 360  
 atatagagt gctgagtggg ttttttatgt agactacang cattgagtgc tcacgctcta 420  
 tgatttcagt ggatataaca acanaaattg aagtagacga tgcaact 467

<210> 9874  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-013-Q1-E1-B7  
 <400> 9874

aattcgcggg tcgactttct ctgtaaatat cactctccgc agatacttat acacctgtgt 60  
 acacgcattg acgcattatt cgcttaaccc ataactcttc agcaggctat cgtcactatg 120  
 gggcacgaca tgcacttaca ctgcgccctt ttgtggcgat tgttgactct atacgttaag 180  
 tttgcaccgg ggattaacat agcacgtgta gataatgata ttgacgaatt tgattgcaag 240

atatagaaca tctcccccg aagatgtgca tactgacgaa ttgctttta attcatggca 300  
tacttgaaga cttcaatcat ggtcattacc ttctatatct tgtgattcat acacgcattt 360  
aacatatgat atgacgaatt tgaaatgcat gattgacata tggtgactga tgtaattcag 420  
catacgtgca taacca 436

<210> 9875  
<211> 384  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-013-Q1-E1-C10  
<400> 9875

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ttgacagtgc caggatcgag atcgccctgt ggttcctga aggcattgcc gagtggatga 120  
gcgacagca caactggatc tattatgccg agcatgtgtc atgagtgtt gagtgcaggt 180  
ttcattaagc atctaccaac ctagccttg gttgtttaca gttttgagat atgtatcttg 240  
ggaaccatgt ttgtgtgcac tgaagttatc tccttgtgca tgggcaccca agcggtagct 300  
gctgctctat atttgataca tggtagctgt ttgcctaca ctgcacggaa aacattgcat 360  
gcagcgccg ctctaaagga tcca 384

<210> 9876  
<211> 446  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-013-Q1-E1-D12  
<400> 9876

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acgcaggggc ctggagccat cgcaacagaa acctagaaaa ggttaaaaat aaagagaggc 120  
tagagaaagg agaggagttg cggctagagg agaaatgaac tgcaaaggaa gggtagaagt 180  
tggcctaaat ttataggagg gaatgccaaa aggtcaaaac tgaaaattaa agaggagtta 240  
atgaaaatta cgttaccaag aatgaaggac aatcaataaa agtttatgtt accaaaacaa 300  
aaaagtctta ccaggaagtt ctacaacgac ttgactgca caaattcatg acgaatttgt 360

acacctgaag cacaagacca tgacgaatgc agtgcataga cgcaacaaag tagtgcatac 420  
ccctaccaat gcagtgcaca aaaatg 446

<210> 9877  
<211> 442  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-013-Q1-E1-D9  
  
<400> 9877

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aggcaagaac gcctggtttg cgaagtttta ggaggcttgc aggaaggatg tcgagcgggc 120  
atttggtgtg ctccaatctc gatttgctgt tgttcggtac cccgctcaga cctgggtccaa 180  
agatcaaatg tgggagatta tgacttgctg tgtcgtcttg cacaacatga tcatcgagag 240  
cgagcaaaaa gaccagtggt ttgacactga accatactac aggcagggtc ctctagccga 300  
agttgatcac cagctaccgg caacttggac tgcctatctc agtatgcgtc aggagatccg 360  
agaccacag gtgcatcatc aactgcagaa agatctgatt gagcacctat ggaggctcaa 420  
gggggacgcc gtgtgaatga at 442

<210> 9878  
<211> 438  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-013-Q1-E1-F8  
  
<400> 9878

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ctcagcctcc aagcgccctc cgacgccgca ctgcacctca tcgaccagga ccctggtcgc 120  
gggcgtcacg gtctctctct ccctggtggc cgcggaacgcc aactcgtgca tctgcccagg 180  
aatccatgag gcaccacctg gccgtctctg tggcggatta cgacagattt gcgaccaagc 240  
tcaagacccc cggcacagac ttgttcgcca agacgcaacc cgatggccgc gcgcgccaag 300  
tggtcttctc cgaccgggac gcatttgtaa tggagtgggtg ttccatgatg taagggcgtg 360  
ctctgataga aacatgacat gacagtagaa gtagatttga caactggatg cccaaggctt 420



aaataggaac tgagatga

438

<210> 9879

<211> 375

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-H1

<400> 9879

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ataacatgat gtagagggat aaactcaagc aacatgatat aaaccccata tttttatcct 120

cgatggcaac aatacaatac gtgccttgct gcccctgctg tctactgggaa aggacaccgc 180

aagattgaac ccaaagctaa gcacttatcc cattgcaaga aagatcaatc tagtaggcca 240

aactgaacca ataattcgaa gagacttgca aagatatcaa atcatgcata taagaattca 300

gagaagaaca gatattattc atagataaac tttatcataa acccacaatt catccgattt 360

cgacaaacac accac 375

<210> 9880

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-H10

<400> 9880

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gcggcctgga ggtgcacatt cttcgtcgtg acctccggca cctgcagggc cactagggct 120

tgaaagagtt cgtcaccatg gaggccgatc aggggtggcag gcaatgagga gcctgggagc 180

gcgggctgga gcagtatggc aaggtcatct gcgcgcttct tgacgtcggg gaacttgagg 240

atggagtgga ccatcatgtc gtccatgcga gaggcgaagc cggcggttggc gagggctacg 300

acgccggcgg tcgccagcac cttttgaaa cgctgcatgg tgtggggccg caggccggcg 360

tcttgatta tctggcacag ccgactgccg ctcacgtcca tcgccccaa aggtgc 416

<210> 9881

<211> 358

<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-014-Q1-E1-A10

<400>       9881

ctcgttgtac ctcgcaacac cctatagtga gtcgtattac tgatccctct gactaactgc   60  
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tggcacgggc agtttgccgt tctgtgtact gtctctggat caattctaaa ttccaccgaa   180  
gacatacact cgttctgccg agtctgaccc ctgccatcac aactcatcgt acatccgact   240  
tgtgtaagca atataagtat cgctgcttaa cttcaatgcc cgaagcaacc gttcatatct   300  
acaccgtgta gaaatttcac gggtgcaatt tgtgcctctt cgagttactg tctctggt   358

<210>       9882

<211>       296

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-014-Q1-E1-D11

<400>       9882

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caataccagt cagagttaaa atcattttac acctgaccat attgtgcgtc tggtagacca   180  
tctttagtaa gaacagctcc cactccttct cttgcagcac gtccctcaat tagtactggt   240  
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<210>       9883

<211>       465

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-014-Q1-E1-E10

<400>       9883

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tccattacct gactcatctg gtgcactcat cagctcccgga acgtccagca tctgtcggtc   180

atcaggtaaa atccacgacc catataaaac agggaagggg attgaccggg ctgttaccct 240  
 aaactttccc ctctgaccca tccctttcct ctgtccgctg ccgcaccgct gtcgtggagc 300  
 ctctgtgtcg gtggagtctg gcgctaccgg acagatgctc tgccgatcct ccttcacctt 360  
 gatctggctc ggtgtggcta accaaaccac gtcgacattc aagcatgccg ctcacaaaag 420  
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<210> 9884  
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 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-014-Q1-E1-E11

<400> 9884

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 gtgtgtcttc gagttacggc gagtctgaat ctctcgtttc ctgagaagac actccaagtc 180  
 ctggatgtac gagagagtgg aatcgctctc aatggtagcg atgatattc cattccttgc 240  
 cctgcgagaa accatggcga ggtctgagtg atcgagctcg gccctgtact cctctcggag 300  
 atgtccaagt gctcgataga tcgccacgtc cttccgatg atccagttga actcggtgaa 360  
 ctcaaagttg ataggctccg tgtgtcctcc aaaggttctc cctgggatat gcacttcaat 420  
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<210> 9885  
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 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-E12

<400> 9885

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 ttctgaaaca gtgcaagatc aactgcatct tatctgatag tagcaggtta cggaaatata 180  
 tacatggaat tgacctgaaa ctttccagga cagtgtacgg tgggtccttg ggtgtctcta 240

ccatgttcct agtcaatagt tgcaaagatc gtgtggaagc tagagaagat ctcgaagctc 300  
gtcgatcagc cccacacag gaggcagcgg ggctttttcc cttctcccat aggacgaaaa 360  
gcggttcttc ttctctgaaa aagagagaca aacctaggcc ctgaaggatc gcatcccgat 420  
ctagccttgt cgctccgcg 440

<210> 9886  
<211> 435  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-014-Q1-E1-F11  
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aatttgatat aggaaaagtt tcttaaaagc atgcaaaaat atcatagaat ggtgatcttt 120  
ttttttaaaa ccctccgttc tagtcatttt caatcatggc agtacaacag acaccataaa 180  
tacgtattac atccagatcc gtagaccatc tagcgacgat tacaagcact gaagcgagcc 240  
gaaggcgcg cgtcgctatc gccctccat cgccggagtc gggcacaatt tgtagtcctg 300  
gacagttggg aagtcgctgt gttacgacac catagagaca gcgcattaca agagcatctg 360  
ccgccgatga gcaatggcag gccgatctac ctggaagaca cattcagctc gacgagacac 420  
gaccatcaga gctac 435

<210> 9887  
<211> 196  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-014-Q1-E1-F12  
<400> 9887

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tctattcgtg attccataga tacgccttcg cagactgtac tgggtgtgatt ccatcgtgca 120  
catggcagac cattttctag gctgcaattt cagcaacctc agcagaattg aatcaaattc 180  
attctttata atggct 196

<210> 9888  
 <211> 379  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-014-Q1-E1-H11

<400> 9888

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 tcgggtcctg tatactatat ttcatccaa tccagattct tccataaagg ttcgtacatt 180  
 ctaccatac tgacctctgc cgtagccact cactcatatc cgtttgcttc actcactcta 240  
 cgtctctctc gataccgtca attcccagat caaagggtcc tacttacagc tgggtgaaaa 300  
 ttcccgggct caatttgtca ctcttccagt ttctctccct ctgcagtctg cactgcctgc 360  
 aactgacttt attgctcac 379

<210> 9889  
 <211> 471  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-A1

<400> 9889

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 ggtgagattt tacagttttt cgtagtttag atcgagtctg ttcttcatac ctacagtcca 180  
 cgaaaaagcc acaaaacaaa attaggggta gttcatcata tccgaaccaa tctgagcctt 240  
 tgcataatct ttctaggggt ttgctttggt gaatttgccg ttgcatcgtc gtgtgtagtt 300  
 gctggtctta gagtctagtc ttttagagtt tcgagttctg gtcataagtt gtcacgccgc 360  
 cgccgcacca tcatcatcgc cctgcccac taccaccacc gcttatccgc caccgctccg 420  
 aatccgtatc catataccac caccgattca tataccacca ccgattcata t 471

<210> 9890  
 <211> 446  
 <212> DNA



<223> Clone ID: LIB31-015-Q1-E1-B3

<400> 9892

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tcacggtgca cctgtacgta gtgtactccg cctcagatgt tcagctgctc tctgggtaca 120  
ccacaggcgg ccatacccgg cgatgggtact cgggaggata gcaccatcca atcccgccga 180  
ggtgtgggag aggtgctgcg ccggcatcaa agttaagcct attaataaag aaaagatatt 240  
tatatttctc gtatttggat gtgcctctat catgtggcgc ctgctaccat tttttaaaact 300  
tgtgggcgcc tgctaccaac gggcgatgct atgtatcgct ctaagcgagc aagatacaaa 360  
cgctgtcact acaaaaaaaaa gcggccgctc tagaggatcc aagct 405

<210> 9893

<211> 422

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-B5

<400> 9893

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tggtcgggtt ccagtgggca tcgaaagaag gtgctttggc tgaggagaac atgcgtggca 120  
tctgctttga ggtcggatgat gttgttctgc aactgatgc tattcacagg ggtggtggcc 180  
aggtcatccc aacagccagg agggtcattt atgcttctca gctcactgct aagccaaggc 240  
tgctggagcc tgtgtacctg gttgagatcc aggccccgga gaatgcactt ggcggtatct 300  
atggtgttct gaatcagaag agagggcacg tgtttgagga gatgcagagg cctggtaccc 360  
cgctgtacaa catcaaggct tacctcccgg tcatcgagtc gttcgggttc tcaagtaccc 420  
tc 422

<210> 9894

<211> 353

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-B6

<400> 9894

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 cgccttgtag gcgcccgtgc ggaggagtgc tgggtgctgca cgctgaaca cgccgccaca 180  
 cagattggat ctgactcctg cgcgtccatc gattcggcct agaagaagtt cgccaaaaac 240  
 acgtcacatg tatcggtgc ctctcgatcc ataatccaac tccaagtcgc ttctccctca 300  
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<210> 9895

<211> 453

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-B8

<400> 9895

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 cctccacaga gtttgccggt gttgcagaag gaaacaataa aagttgcttc ttcccaccag 180  
 ccagacaggc agccgcagcc tgttctgcac aaaccaaagg tgctgtagt ctctcccctc 240  
 atcaaacagc agcagtcaag caccttgccg aaagaagagc cttgttcttc tggcaggaac 300  
 actgaaaaag gctcagtacc agaggttaag cagtcaaagt ctgatcgtaa gaagagccgc 360  
 aaggctgaga aggaagagaa taaagagagg aagttccgag atctatttgt tacctggaat 420  
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<210> 9896

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-C5

<400> 9896

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 ataacttcct cgtgccttac tttcccgagt aagtcctccc ctcaaccggc ccgtaacata 180



tgaattctta catttcgatac gtttttcttt taacattccg tgttttctgc agtgacacac 240  
 gttgcacgct catcctccta agccccaat attccatggc cacgtatttc caccggacc 300  
 gtcagtcgaa cgtagactac acaaatgtca agaaggttct tgatgatgtt ctccccggct 360  
 acgccaatc tggaggcacc ttcaccaggc ctattcgtaa gtacggcaag cacgtgttct 420  
 ccacaatac gatgttctg 439

<210> 9897  
 <211> 449  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-C6

<400> 9897

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 gagcacgtcc atcgatacat ggttgcgta gaggggtggca ggttctccaa taccggcag 180  
 tttcttcagg gatctcactt caactatgat cctgtgaggg ttccttctct ttgggtgtcc 240  
 accgccgcgc cgcaggaacc gcgagtgtcc tagattcttc tgtagtattc gatctttatt 300  
 agctacctag ccagtgatgt attcgatatt atatctatta ttcgagatga tgtattcgag 360  
 attatatcta ttattcgaga cgatgtattc gagattatat ctattattcg agacgatgtt 420  
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<210> 9898  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-C8

<400> 9898

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 tcttgggcca caatgttgtc tggatcacc tcccaggcac catgggcgtc ttaaggtccg 180  
 cgaggatcac tctgccgcac atggccgcta gtacctcacc atagtcgttg tggggtagga 240

acctcgattg aattggtaaa tgggcagagt ttttaatgaa gcggtggagc gggctctgtag 300  
 gttttaggtg tgagacaagg gcagtcacct atatacacgg tggtcgtgtg acggcgcccc 360  
 cacccaaggt tccatgcac agtgaggggt cgtgcggcgc agaaggaacg aggtagggtc 420  
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<210> 9899  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-015-Q1-E1-D5

<400> 9899

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 ttccgaactt ggagaggtga tacagccgga actctcttca gagaagattt tgaagctaac 180  
 tggatgatag ggtcagagat gatacccttg aaggattcag caagcatgac ccagctgccg 240  
 tcgcgttggc cagctaagat ggtgttgact ctgatgtgga caacgggtca cgcgtgatgt 300  
 atgtggccgg agaggttgat tccggtggag tagagggagt tgagcaaagt actgtgtttg 360  
 ctctgctcnc gttgtgcaag atgggcacac catcttcaac agtttgttgt ggtgtgcgtg 420  
 cgggtgtgctt gaggttccag acaaaaagaa a 451

<210> 9900  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-D6

<400> 9900

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 ctaccttgga tatgacaaaa aatattgcat atatgcatat ttgtcaggtg atttctagt 180  
 caaactattc aataatgtat ttatgttatc cagaacaaaa atacttcaca cacttttgtg 240  
 ttttgtctaa ttgcaggtgt atgggacatt tgtacaatcc acatatgaag ataaggaaga 300

aagagatgtt tatttgctgt ccaaaaagtt ctctcacgtc acttttggcc caagagaaga 360  
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aaaacgcaca caagtttttc atacggactc 450

<210> 9901  
<211> 450  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-015-Q1-E1-D8  
  
<400> 9901

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<210> 9902  
<211> 442  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-015-Q1-E1-E4  
  
<400> 9902

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ggcataacat ccattccagg tgacatttgg aggacgaacc ttgcatctct agaggagtta 180  
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<211> 427  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-E6

<400> 9903

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gttctag 427

<210> 9904  
<211> 433  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-E7

<400> 9904

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cgggtggctca actcaagttt gcagaacacc ggatctgccc agggcaaggc cctcgtccac 240  
gaatttggcc gggtaaaatc attttcttca ttgtttcggc cgggtgaggc tggatcacac 300  
gtcaattact tgtgcttttc tcctgggtga tcactctgtc cagatttgca cttctttttt 360  
ggtgattttt agtttgttcc atctattcct ttgagaccgg tgatccaact gtatggctta 420

atcgagatgc ata

433

<210> 9905

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-F1

<400> 9905

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tatgaacccc acaaatccag tgctccaaac gaagggtcca ccgtcaaatt gtccacttgg 300  
aggtccttcc agtgtgcat aatacgtcaa tcccttaaca ctgagagaac atgcagcctc 360  
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ggcgaacct 429

<210> 9906

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-F3

<400> 9906

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agaatgaaag taactactca caaatgataa acatgctcaa gatcagaggg gtattaaata 180  
gcataatgga tctgaacata taatcctcca ccaaataaac catatagtaa tcaactacaa 240  
gatgtaatca aactactag tcaccacagg gcaccaatct atagttttga taaaagatt 300  
gaacgcaagc gatgaactag gggttgagag aagttggtgt tgtgaagatg ttgatgaata 360  
taacctccc caagatggga gagttgttgg tgatgatgat gacgatgatt tccccctccg 420  
aaaaggaaat tccccggcg 440

<210> 9907  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-015-Q1-E1-F8  
  
 <400> 9907

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gagccgagga ctcatggcaa cattcgctat tacactgtac ggtagctagg tgtgtatggg 240
ctcttcatga tcaagatcta gtggaagctc taaataacac caaggagccg gatgctaaac 300
gttggtgtgt tgcatccag gacatgctat ctctgaaga gttcatcttg gtagtcacca 360
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<210> 9908  
 <211> 468  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-015-Q1-E1-G1  
  
 <400> 9908

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agaggctgat gctggatcat ctggcactat ctctaategg aagtacaacg cacctcaacc 240
tggtgctgag caattccaaa tgcaaattgc taacaataag gtgggtctgg ttattggtaa 300
gggtggtgag actataaaat ccatgcaggc caaatctcaa gctcgtatac aggtcattcc 360
tttgcatctg cctcctggtg atacttcaac tgaaagaata ctgtatattg atggtactgc 420
agagcaaatt gagatagcag agcagcttgt gagtgaggtc actagtga 468
  
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<210> 9909  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-015-Q1-E1-G5  
  
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 aaaattccta cacataatag gtttttggat tgctgggtaa taggcaattt ttcgactaat 300  
 ttaattcata aatagatgac tagcatgaca ttgacaaaat taacgacatg ctgatactga 360  
 tataaataag cacgtaccac cacacattat gctagtcctg ctaatacgga aataattaga 420  
 agaaggataa acgcg 435

<210> 9910  
 <211> 449  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-015-Q1-E1-G6  
  
 <400> 9910  
  
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 caaaatggac gtatcaactc cccaacggc tottaagtga cccgcaactc agctaggcga 120  
 gcatgcccac acgcccggcc gaactaggta tccacacatc actcccttgt gcactgttcc 180  
 aacgatgttt ggatatacct tcaactgctc cttagcttac acgcctatgc aactctgact 240  
 ttaactctta tttcttctgg agatatcatc tgaaacaagc aaatccattt ttttagcgaa 300  
 gcatgacggc gtaacgggat ctggtacaca tcatgcacac ccatataacc ttgtaagtat 360  
 ctgtctccg gtacaacatc aagggtcgatt cctcttattt gatcaaccat tcaccgtgtc 420  
 aaaaatgcan anggggatgc aaggagcac 449

<210> 9911  
<211> 439  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-G7

<400> 9911

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catcatgatg accgaagcag agaaatgaag acatcagtgt attggaccag cctcttccag 180  
aagtgaagc caggatgaga agaccgcgta gattcggttac caaaccttcc ccccttactc 240  
ccctcttaaa tctcgggacg agatttcttg tagtggagga gaattgtgac gcccgataa 300  
tcatgctaca gtaactccct gtgattaagc taatcatggt gctaaacagg gcttgatcac 360  
atttgaatca ccttactttc ttactcctag ttcaaacttc aaatataatt aaagtgaata 420  
ataaaagttt tcaaaaact 439

<210> 9912  
<211> 447  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-H2

<400> 9912

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gataatcccg tactcattta ccctaacttc agcagtttca aatatttcgg ctgaatatga 120  
ggctttgata attgggcttg aattagctct gaatatgggg ttagattcac tcattgttta 180  
tggtgactct cagttagtga tcgaccaact actgggaatt tacatggtaa agaaagaaga 240  
attaatgcct tacttccaac gagccaaggt gctcatgtcc ttgtttactg atctaaaaat 300  
tcagcatatt ataagaagtc aaaacgaaa ggccgacgcc ttagcagggt tagccgctag 360  
tttgtcacta acttcacatc agatgatgga cgttcgagtt gaagaatgta agatactacc 420  
tatactcacc gcaagagagg agacgac 447

<210> 9913  
<211> 405



<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-015-Q1-E1-H7  
 <400> 9913  
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 caaattatgg aagcttcatt cttgtccttg tagtacatcc gtactaaagt cttactgcag 120  
 gtaaagggtt cacggaaata tggaattggg gaatatatag gagcactacc atcggtatta 180  
 cttcggctctt ttttatattt ggattggatg tactaaaaag gaaaggctct ttttttcttt 240  
 aattgtcatg gtgacacatg cgcgtgcatc attctcacac aaacaaaaat cagtttgtct 300  
 aattcatatc tagatatattt ttaaggatgt cacattaagc tcttacaaat atataatgca 360  
 gcaacagcca aaaaaaaagc taaagcagga aaaaaaaagc gggcg 405

<210> 9914  
 <211> 464  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-017-Q1-E1-B2  
 <400> 9914  
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 atgcacaacg ctctctctat ctaccgcgag ggttggcaac tctgcgtcaa cgagggcgaa 120  
 gcaccggctc ttcgaggatt tgcaggtgct gacacattgg accaacacca tgataatggc 180  
 aactctgcct cgttaatgtc ggccaccaac gatgataagg ccaaaccgcc ccacatggcc 240  
 attgacctca cctccaacgg gaggaataga ttaggttttc agttgttttt agggttttct 300  
 ttgttatgta taaattactt cgaaatgatt gaaaaatcgg tgtccacctt atttgatcac 360  
 tctggttgga tggcctccgc ccagctggct atccacaaac atgtccgaca atttttttga 420  
 aggcgtactt atttgtaatc aagcaagcgg caaaccaata catg 464

<210> 9915  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-017-Q1-E1-C1

<400> 9915

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aaactgaaac tgttgtggca catcttacta agttgaatga tatagccacc ctttttactg 120  
atgatgagaa aactcgctat tactttattc tcaaattatt tcctttctca ttagagggtg 180  
atgctaaagc ttggtacaat actcttgctc ctggttgtgt gcgtagtccc caggatatga 240  
tttattactt ctctgaaaaa tattttcctg ctcatatgaa acaagctgcc ttacaggaaa 300  
tatttaactt tgtgcaaact agagaagaga gtctcccaca agcttggggg aggctttgca 360  
aattacttaa tgctttgcct gatcatctc ttaagaaaaa tgaa 404

<210> 9916

<211> 426

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-017-Q1-E1-C6

<400> 9916

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tcaatccatg gcttgctcga aacaacgagt gcctccaact aacaacagtc ccaggggggg 180  
ttttgtttgc aattattttg gtttgatttg cataaagcat gggattgggc atcccgtga 240  
ccagccattt tctcgtgagt gaggagcgga gtccactcct cttgagaata accgcataa 300  
catggaagat acggatagcc ctatttgata catgagctat ttgagcatac aaaacagaat 360  
ttcatttgaa ggtttagagt ttggcacata caaatttact tggaacggta ggtanatact 420  
gcaaat 426

<210> 9917

<211> 420

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-C8

<400> 9917

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 gcttatggtg atctttgggg ttgttttgct tatcgtgata atagttttgg catcttgaga 180  
 cacggatgct tagaggccta ttggtgccct ctgaggagcc atattacgtg caagattaat 240  
 cctcgctgtg cgccgaagac tgtcgctaac tgaagtgtac attttctttt tctctcttct 300  
 tttttccttg tggtttgtga gtgcgtattc ttgtgtggcg cgagtccttt ttttcccacg 360  
 gcttgccctg agtgaacagt catgctcttt ttcacctaca aaggtttggt tgctgctttg 420

<210> 9918

<211> 419

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-D1

<400> 9918

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 gctcctcaa catcgactgc ggcgctcca tcgggacgat ctttgggatc tacatgatca 120  
 aagacaagga caacgcgact ctggaggacg tgctgcaacc cgggactgac atgatcgccg 180  
 ctggctaccg catgtacagg agctcatgca cgcttggtgt gagcaccggg aacggtgtta 240  
 atggcttcac tcttgatcct tcccttgggg agttcatact taccatccc aacataaaga 300  
 taccaaaca agggaagatc tattcgggtca atgaagggaa cgccagaaac tgggacgcgc 360  
 ccacagcaaa ccaacattgc aggtacgtgg agagatgcaa gtttcccaa gacggctca 419

<210> 9919

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-D2

<400> 9919

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 cttgatggat ggtcactcga tttcagctgc cattgtgcat caccatctcc tggatgcctt 120  
 gatatctgtg ttgctttggt gatctttgtg tagctcttga cataatcggc tactgttaac 180

aacttgaacc agtaataatc tgcttgatga tagaaacctt ctgttcctt cagaagaaca 240  
gagctaagtg caggggtccat ttttctgaag gaaacactgg attcagttaa aagaaaaagg 300  
aaacactgga tttctccacc aaatggcaag cagaaaaaga tgtctagttt ggtaattttc 360  
aacgccttac aagttactgt acttgattag ccagaaggaa tataatgttc tttt 414

<210> 9920

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-D3

<400> 9920

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caaacgacaa ggcgggatgct gagaagattg tccagatcaa ccgtgccgag ggtgaagcag 120  
aagccaagta cctgtctggc ctgtgtaacg cccgccagcg ccaggccatt gtggatggcc 180  
tgacggacag cgtcctgtgc ttctcagtca atgtgcctgt caccactgca aaggacgtga 240  
tggacatggc gctgatcacc cagtactttg aactatgaa agaggttggc gcgtcctcca 300  
agtctcggc tgtgttcac cccaatggc cctggcgccg tgcccgagat tcccacgcca 360  
gatccccgac ggtcttcttc agggccaatc tgctctgac aactaatcac tttgcttcgc 420  
cggc 424

<210> 9921

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-D6

<400> 9921

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aatacataga agaagctaga gatgttgggt cctattgtag tggagttttt gcaataggag 120  
tcttgttaca gaaaaataaa gaagaagttt tacatcaagg gtcttgttgc agaaaaatag 180  
agagaaaaag tttcgcaata ggtgtcttga tgcagtaa taaagaagag aatattttgc 240  
aatagaggtc ttgttgcaaa aaattggaga agaagagatt tttgtcacat ggctcttgtt 300

gcagaaagtt acacgagaag aggtttcaca acaggaacat tgctgcaaga aattacagaa 360  
 caagaatgga cggctcgctt cttacaatcg gacggctcac gaggcagcgg gtctttttaa 420  
 agattcttcg gccgacgcat agcactg 447

<210> 9922  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-017-Q1-E1-D7  
 <400> 9922

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 acggtcagat ttgcagtgcg acatctcgtc ttcttatcca taaaaatata gctaaagaat 120  
 tcgtcgacag gatggttgca tgggtccaaa atatcaaggt gtcagaccgc ctcgaggaag 180  
 gttgcaggct tgggccagtt gttagtgaag gacagtatga gaagatcaag aagttttag 240  
 cgaatgctaa aagtgaaggt gccaccattc tgactggggg tgtcaggccc aagcatctgg 300  
 agaaagggtt cctcattgaa ccacaaatca tcaactgacat caacacatca atggagattt 360  
 ggagggagga agtctttggt ccagtcctct gtgtgaagga attttctacc gaagaggaag 420  
 ccatcgaact ggccaatgat ac 442

<210> 9923  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-017-Q1-E1-D8  
 <400> 9923

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 tcgcaacagg atttccgcag tccttccaga agtcccttct ggctgaccgc aaggagcac 120  
 ggatactgga ggcgaaagta aaagcggcta gccttgcaac ggctgctgag gtgcaacaac 180  
 cggcagcggc cgtcccgaca tgggtccgga ggctcttctc ctgaacactg tttagcaggc 240  
 aaacaacctt gcgattgtga ggctgtggtt cttactttct cgaggcagta gagagtttta 300  
 gccggtgtta ttctttttgg ctgtgtaaac actctgaaaa ctagtttcgc gtagtgatta 360

ggttctcgtc tagtgtatgt attgttcaga cacttgactc gggtgtttta gaaagtgttc 420  
tggtcgttga cagctttggc aaccccaggg 450

<210> 9924  
<211> 450  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-017-Q1-E1-E3

<400> 9924

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gggactcgcg atgcaaaggg cgatctcccc ttcaattcta gcctcagggc ggctgaggat 180  
cggaagaagg gtttttcttg tgagagctca tccaaggaac ggtatgaaac aaggcaaagc 240  
acgaaggaat catggacacc aagctctcag cagaacaagg gagtcgaggt tacttcccca 300  
gtgaagaacc cctcattgaa caagcgcaag ggtgggccgc aacaggttta ccgtanggtg 360  
gaaccagccc cgctcgccat gacagaacat ggggaagtgc atgcgactac tgaagaagca 420  
tcaggaaaaa gctcagctgc agattctgaa 450

<210> 9925  
<211> 427  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-E5

<400> 9925

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ttttacgcac cgaggggtggg tctgcgatca ctccatagtg ttctgagggg gattcaattc 180  
agcactagac agccaaaagg aagacacaat aagctggcca agctcatatg catgcacctc 240  
tgccaactga accatctaata acctcaccgg agtatgtaat gctatctagg ctgatgaatg 300  
aattatctgg tgcattatgg ttagcaacat ggcatgctgt tctgttttcc ctcatatgatc 360  
cggctgtcca ttaacttgct tttaactgaa cttctatttg attgtcttag ctttaataac 420

ctctttt

427

<210> 9926  
<211> 268  
<212> DNA  
<213> *Triticum aestivum*

<223> Clone ID: LIB31-017-Q1-E1-E7

<400> 9926

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gaatgggttc tgttaagcca gatcgatc tctaggatga gaacgacatc ctggtaaacc 120  
tgcatacaga gacgcgtcag aacattggtc gcatgaaagt tgccttctca atgatgggta 180  
tgtcgaagac gtgtgtgtga acacgagtgc acgaatctct tccatttgca gtagacatct 240  
tcgcgatcaa gatcaccgcg aataacttg 268

<210> 9927  
<211> 455  
<212> DNA  
<213> *Triticum aestivum*

<223> unsure at all n locations  
<223> Clone ID: LIB31-017-Q1-E1-E8

<400> 9927

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cgtcctgcag aggagatgcc tggttctatg ggtgaccttc ttctgagct ctcgcaactg 120  
cttgatcaag tttggcaggt gatgcaaggc atcgcccagg cctgtgggcc atccgtctcc 180  
atgccgaag gtcttggaga gcttgcatg aatctaaagg gagcacggcg gcgcttccga 240  
ttgtggaaga tatcagcctg ccgtcaaggc gctagggagg cctgggcat ggtgaagacg 300  
cggtacacaa aggctgaccc caaccacatg gccgaggtcg gtcctgtang gccgatggg 360  
aaggagatcc ttgtaagggt agtatacggc caagtagagt tggccgcana gtattcctag 420  
taggactgta aattagacag cctgtagat ggtat 455

<210> 9928  
<211> 443  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-017-Q1-E1-F4

<400>       9928

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atttttttagg agcaatgtca gggactcgac atccatttgg acctccgaat caggaccggc   120  
cgcgtcacga gcctcttgtg ttatcaagtg ttccttgcac gaccactega gagcctccgt   180  
tccttctcgg gccatcgacg gagtcccccc ttogatccct tcagttgacc ttaccggccg   240  
agatgatctt tcaagaggag gcaatgctaa agcatcggct aagttcaact caggagacca   300  
cctcgatgcc agatttggga gcggtacggc tgactcgggt ctgagggcgg aatcgaagta   360  
acttcgcgat caaaatggac agatgacttg gaatttctgg aacatttgct cattggagtg   420  
ctccatttag gcagacaggc aat   443

<210>       9929

<211>       426

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-017-Q1-E1-F6

<400>       9929

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aaaactattc gctaattttc agtaaaccce ttgttctttt gcttaataaaa cccacagttc   120  
tatttttaag tgagtttaaa gactttttta aatactagca aaacgaccca tgcgtcgcaa   180  
ctgaagaaaa aaaaatcata atctctaagt gtcatgacca ctttttgctg catcaccgag   240  
atacactatc actttcattt tcgtgaaatc gtgaacaatt tttgaaaatc atgaacattt   300  
ttttaactga tgaacatata tgaaatcgtg aacattttcc aaatacttga acaattttta   360  
aaaattgcaa actttgtcca aaatcataaa cgttttatga attcatgagc attttatact   420  
atttgc   426

<210>       9930

<211>       443

<212>       DNA

<213>       Triticum aestivum



<223> Clone ID: LIB31-017-Q1-E1-F8

<400> 9930

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tccaggcagg ctcagcctcc aggcgcccct cgacgccgca ctgcacctca tgcaccagga 120  
ccctgggtcgc cgccgtcacg gtctcctcct ccctgggtggc cgcggacgcc aactcgtgca 180  
tctgcccagg aatccatgag gcaccacctg gccgtctctg tggcggatta cgacagattt 240  
gcgaccaagc tcaagacccc cggcacagac ttgttcgcca agacgcaacc cgatggccgc 300  
gcgcgccaag tgttcttcct cgaccgggac gcatttgtaa gggagtgggtg ttccatgatg 360  
taagggcgtg ctctgataaa aacatgacat gacaatagag gtagatttga caactggatg 420  
cccaggctta gataggaact gag 443

<210> 9931

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-H5

<400> 9931

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caggactcgc tgagtgatga gtgtttcagt catgtaacac acataattga gttgccaggc 180  
tgctgggtttt gctacaggtc ggcgaattag gtatatcatc aaataagagg gttcggtcgg 240  
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gtgtcagata cgtagtcatg atactgggtg tgggtgtgtag cgagttgcat ttctcacctt 360  
tttcttgtgt ggtattgggt accgattcctt gctttatctt acttagctgt atatatttct 420  
ccatttga 428

<210> 9932

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-H6

<400> 9932

attccccgggt cgactaattt attcgactat atggagatgg agcagaaggt cagctatgta 60  
tgccaaggca gtgctaaaaa caataaaact acagcaatag cgacaaatgc tctaaaaaca 120  
gtaaacaatga gacattaata cctgattagc ggcagcagca tcacgacat cgtcctcgtc 180  
atcagcattg aagtcagcat catccttttc ctctggatta acacgagacc acttctttgc 240  
agggtggaacc ttgcgcttca cgccgcattt cttcccccta ccagatgcac cagcaccaag 300  
taaagaaggt gtagactcgg cagtggcaag cacacgagga ctacagcgtg gcgtaccacc 360  
aaggcctaac ccttcattctt caacaacttc tgcaggcctt gaaatacgtg ggctctttcg 420  
aggagttact tcaccaacta ct 442

<210> 9933

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-H7

<400> 9933

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acaacaagat caactgggca atgaaagaca agcaagagtt tggtgacatt gtggagactg 180  
tctacagagg agctcgtaag gggcgtggtc tggtgattgc tcccaaggat tactccacaa 240  
aataccgtta ctgaggatc tgtgcctggc tattcatgtg cagtgtgtgg cctgctctgt 300  
tccgtgatat gcgctgtgtg acccttgatg taatgtctgt caactttgaa agtgctgtaa 360  
ctatgtattt gtatcttgaa tatcaacatg tcataaacct gcaacccttt aaaaca 416

<210> 9934

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-H8

<400> 9934

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tgccctctatc aagtgggtatc agttttcaga ttgcttgggtg agattttcca gtttttcata 120  
 gctaagatcg agtctgttct tcatacctac agtccacgaa aaaagccaaa aaattagggt 180  
 tagttcatca tatccaaacc aatctgagcc tttgcatagt ctttttagag ttttgctttg 240  
 ttgaatttgc ggttgcatca tcatgtcgag ttgctgggtct tagcgtctag tcccttagag 300  
 tttcgagttc tgttcatagg ttgtcatgcc gctgccgcac catcgtcatc atcattgcc 360  
 tataccacca cccaaccct atacatgcc actgccatat acgaacacca atccgagttc 420  
 gcatataaca tcgcatata 440

<210> 9935

<211> 405

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-017-Q1-E2-A1

<400> 9935

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 gaacctgtgg gatgcaatgg cgaaagattt gcctagccct gatgtggatt ttgttcacaa 180  
 caatggccct gaatggatgt tctcctgctc gagccaatca caaatagcc aagcgtggtg 240  
 ttgctgacca tgtggcgtag ttggcacgtc cgtaacgaga taactcgtca gaagaatccg 300  
 cccctacag aggcctcctg cagatttctc catggatata ttaactccct gctatataac 360  
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<210> 9936

<211> 460

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-A12

<400> 9936

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 ggacccccac acaccattgt gtctgataga gacaagatat tcactagtca tttttggaga 180

gatttgttca aactgcggga cactaagttg ctcatgagta ctgcttatca tctctaaacc 240  
 gatggacgga gtgagcgggt gaaccgggtg ttggagatgt tcctcagggtg tgcagttcat 300  
 gatacgcccta ctaagtggca tgcttggtg cccttggcag aattctggta caatacaaat 360  
 tatcactcat ctctggagtg ctctcccttc aaggccctat atggatatga accaacttat 420  
 ggagtctttc ctagtctgct acagtctgac aacatagatg 460

<210> 9937  
 <211> 162  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-A7

<400> 9937

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 tttgggttac tgtcgcgtgg tcggtttgtc ttttgtgggt tactgtgcct agcctgccct 120  
 aatgggggcta tgggagtggt ctgtggagtt cccgggactg cg 162

<210> 9938  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-B10

<400> 9938

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 ccatcggtt cgtcgtcatg ggcttcgtcg ggttcttcgt caagttcatc ttcatcccca 180  
 tcaacaacat catcgtcggg tccggctgat ctcgtctccg caggtgaggg gccgcaggac 240  
 gagaggatgg tgtccattca tggaggcggc gctggttttc ttatcctcgt accttaaagc 300  
 aattcattta ggacttcatt gtagaggaca gttcccttgt gttttcattt gaaacagttg 360  
 tattggtaga cctggagcag ttttgaacct gattccggct agaccgtaat atcaagcagt 420  
 gaatgacaag aattg 435

<210> 9939  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-B8

<400> 9939

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gcagagctcg acggcctcac caacctgcag ccccgcggcg gctgcgacga cccagctac 120
ccttactact tcaagtcaa gttatgttcg agggatggat cagttgtgat gattcctggg 180
cagggaacac cactaactgc tgagcagagc cagaaaggag agatgacttg tttgatggtc 240
tttgaatgca gaggctatga acctattgag ttcgcttttg gtactggctg gaaggctgaa 300
tctgtacatg ggacaccatt tgacattgat ctttctgaac gagagtttga tgagtatgat 360
gagaagggag agtgcctgt cgctctatcc aagctgcagt caacattcag agtgggtaag 420
aagcagggtt ttcattgggaa ga 442
  
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<210> 9940  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-C1

<400> 9940

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atctgacct tcccatgggt atgaaactga aactgttgtg gcacatctta ctaagttgaa 120
tgatatagcc acccttttta ctgatgatga gaaaactcgc tattacttta ttctcaaatt 180
atttcctttc tcattagagg gtgatgctaa agcttggtac aatactcttg ctctgggttg 240
tgtgcgtagt cccagagata tgatttatta cttctctgaa aaatattttc ctgctcatat 300
gaaacaagct gccttacagg aaatatttaa ctttgtgcaa actagagaag agagtctccc 360
acaagcttgg gggaggcttt gcaaattact taatgctttg cctgatcatc ctcttaagaa 420
aaatgaaata ctgatatct tctataatgg actaaccgat 460
  
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<210> 9941  
 <211> 448

<212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-017-Q1-E2-C11  
  
 <400> 9941  
  
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 tggtcggggc tgttaacggg ttatcggatc caaaaccca cccgttagct taacggcggt 180  
 ccgttacggt ggatgccacg tgtcggtcac ccttgacgaa agcacttctg tgacgcgcga 240  
 tttatcgtca tggaagtgga cacttccgtg atgataattt tggtaatgtc atggaacact 300  
 tctacgacaa cacaggtatg actatcttga ttctgacata aatttgtcat ggatgtacat 360  
 gcatgacaaa aaacgcgacc tactgtgaca aacatgtatc atcacggaag tgtatttttt 420  
 ttgtagtggtg caaacttcgc cggtgcat 448

<210> 9942  
 <211> 440  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-017-Q1-E2-C6  
  
 <400> 9942  
  
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 gaacaaataa atcggcaaag cgtccaagac tcagaagtca aattcatcct tgctttgcct 120  
 gcttatgggtg atctttgggg ttgttttgct tatcgtgata atacatttgg catcttgaca 180  
 cacggatgct taaaggccta atggtgccct ctgaggagcc atattacgtg caagattaat 240  
 cctcactgtg cgccgaagac tgtcgctaac tgaagtgtac attttctttt tctctcttca 300  
 tttttccttg tggtttggtga atgcctaata gtgtatggca cgagtccttt tattcccacg 360  
 gattacactg agtgaacagt caagcacttt ttcacctaca caagtttggt tgcagcattg 420  
 cttgagtcac agacgtgaca 440

<210> 9943  
 <211> 452  
 <212> DNA  
 <213> *Triticum aestivum*

<223> unsure at all n locations  
<223> Clone ID: LIB31-017-Q1-E2-C8

<400> 9943

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acattatagg cggttcccaa acagaatggg aaagtttata ctccccctcc accaacaagc 120  
atcaatccat ggcttgctcg aaacaacgag tgcctccaac taacaacagt cccagggggg 180  
gttttggttg caattatttt ggtttgattt gcataaagca tgggattggg catcccggtg 240  
accagccatt ttctcgtgag tgaggagcgg agtccactcc tcttgagaat aacccgcata 300  
acatggaaga tacggatagc cctatttgat acatgagcta tttgagcata caaaacagaa 360  
tttcatttga aggttttagag tttggcacat acaaatttac ttggaacggg aggtagatac 420  
tgcagatang aaggtatant ggactcatat gg 452

<210> 9944  
<211> 464  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-017-Q1-E2-D1

<400> 9944

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gatctttggg atctacatga tcaaagacaa ggacaacgcg actctggagg acgtgctgca 180  
acccgggact gacatgatcg ccgctggcta ccgcatgtac aggagctcat gcacgcttgt 240  
gttgagcacc gggaacggtg ttaatggctt cactcttgat ccttcccttg gggagttcat 300  
acttaccat cccaacataa agatacaaaa caaagggaag atctattcgg tcaatgaagg 360  
gaacgccaga aactgggacg cgcccacagc aaaccaacat tgcaggtacg tggagagatg 420  
caagtttccc caagacggct catcaccaaa atccttgaga taca 464

<210> 9945  
<211> 461  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-017-Q1-E2-D10

<400> 9945

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ctccctgttt catttctgta atcagataac aaccgtgccg tgccatggca ggcttcaaca 180  
gtgttgagct ccaaggcacc atcgactact tgtcaatcac gccggcggcc cgcgctggat 240  
gttaccatgt aatggatgaa gcaaattgcc actgatttag aaccagcgga ttggttcctg 300  
gtacgccgct ggtttcagtg tctgaacctt atgatttaga aggtgtcaaa ccaaattgatg 360  
tatccgctgg ttcattcaat tcagtgccga acccaatgat ataattgatg aagcaaacac 420  
ccaccgattc atccattatg atgaacctcc aactacaaca g 461

<210> 9946

<211> 460

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-D12

<400> 9946

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ggagcggat ggggcctaac aagacgcttg gggttggcct cattgttctc tactcagttt 180  
tccttttcat tagagtaagc agtgctatgg ggatattgcc actcccgggc ttgaattagt 240  
tgtttggtgc tattgtacat gactgtcctg tatacagatg aaatgggggt gtacattggt 300  
cctttgttct gttgttatgc ctcaaatttg gttgtatgcc tgtcaggctt tcagagacaa 360  
taaagccaga gcatgcctgc aactgggtcta cttatttgta caaaaaaat aaaaaattaa 420  
gtaaacaaaa agcggccgct ctatatgatc caagcttacg 460

<210> 9947

<211> 470

<212> DNA

<213> Triticum aestivum



<223> Clone ID: LIB31-017-Q1-E2-D2

<400> 9947

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catgcatgtg tgctgctagc tcttgatgga tggtcactcg atttcagctg ccattgtgca 120  
tcaccatctc ctggatgcct tgatatctgt gttgctttgt tgatctttgt gtagctcttg 180  
acataatcgg ctactgttaa caactgaac cagtaataat ctgcttgatg atagaaacct 240  
tcttgttcct tcagaagaac agagctaagt gcaggggtcca tttttctgaa ggaaacactg 300  
gattcagtta aaagaaaaag gaaacactgg atttctccac caaatggcaa gcagaaaaag 360  
atgtctagtt tggtaatttt caacgcctta caagttactg tacttgatta gccagaagga 420  
atataatgtt cttttacagg tccagtgtgg ctcccttgatt caggggaagc 470

<210> 9948

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-D5

<400> 9948

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gtgatatgat cgatgattgg ttggatgctc ggataattga gcccaggaggaa catggagtgg 180  
ttgccgagggc tgtaaaccgg cctccaattg aatacgctcg gccaaacaaa gctgggatct 240  
ttctcgaaca cgaagcagcc agagccgtca atgtcacgaa cgcccagggc attgtaccgc 300  
atgtggtttg atgaaatggg ttgggtcaatt tggtagctgc aaatgagcat caaatgacaa 360  
ccgtcagctg aacgaacgat aaaccaccac ccatcggtcg gtatgattcc aggtcctaga 420  
atcatgaagg ccagcgcatt tgcgtctgc 449

<210> 9949

<211> 457

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-D6

<400> 9949

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atcgcaacag gattttccgca gtccttccag aagtcccttc tggctgacct gaagggagca 120  
cggatactgg aggcgaaagt aaaagcggct agccttgcaa cggctgctgc ggtgcaacaa 180  
ccggcagcgg ccggtcccgac atgggtcccg aggctcttct cctgaacact gtttaacagg 240  
caaacaacct tgcgattgtg aggtgtgtgt tcttactttc tcgaggcagt agatagtttt 300  
agccggtgtt attctttttg gctgtgtaaa cactctgaaa actactttcg cgtagtgtt 360  
aagttctcgt ctagtgtatg tattgttcag acacttgact cggttgtttt agaaagtgtt 420  
ctgttcgttg acagctttgg caaccccagg gctcgtc 457

<210> 9950

<211> 453

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-D7

<400> 9950

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taaagaattc gtcgacagga tgggtgcatg gtccaaaaat atcaaggtgt cagacccgct 180  
cgaggaaggt tgcaggcttg ggccagttgt tagtgaagga cagtatgaga agatcaagaa 240  
gtttgtagcg aatgctaaaa gtgaaggtgc caccattctg actgggggtg tcaggcccaa 300  
gcatctggag aaaggtttcc tcattgaacc cacaatcatc actgacatca acacatcaat 360  
ggagatttgg agggaggaag tctttggtcc agtcctctgt gtgaaggaat tttctaccga 420  
agaaggaacc atcgaactgg ccaatgatac tca 453

<210> 9951

<211> 453

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-D8

<400> 9951

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 tcttgttaca gaaaaataaa gaagaagttt tacatcaagg gtcttgttgc agaaaaatag 180  
 agagaaaaag tttcgcaata ggtgtcttga tgcagtaaat taaagaagag aatattttgc 240  
 aatagaggtc ttgttgcaaa aaattggaga agaagagatt tttgtcacat ggctcttgtt 300  
 gcagaaagtt acacgagaag aggtttcaca acaggaacat tgctgcaaga aattacagaa 360  
 caagaatgga cggctcgcct cttacaatcg gacggctcac gaggcagcgg gtctttttaa 420  
 aagatccttc ggccgacgca tagcactgcc cta 453

<210> 9952  
 <211> 376  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-017-Q1-E2-E1

<400> 9952

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 gccaaaggta tctctgaagg aaggccttcc cttgatgggtg acagatttcc gcaaaaggat 180  
 cttggatgag taatcaaggc aacagtgaga tgaatctatt tggttctgaa tgctgcgaat 240  
 ataggcaaac gcgcttcacc aactggatcc gttcagtaca attctgtgtt tgtataacga 300  
 ccttgtagaa tcatttaaatt ttgttttcgt cttggtgaga ctggacagaa gtaaccaatg 360  
 gttttttgtt caaaaa 376

<210> 9953  
 <211> 469  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-E10

<400> 9953

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cgccctgggcc cccaggtgcg ccctgggtggg tcgtgcccc cttggggcac ccctctcgta 180  
 cttcttcagc ccattcttggtg tcttctgggtc cagaaaaaac cacaaaaagt tttgctgcgt 240  
 ttggactccg tttggtattg atatcccgcg atgtaaaaaa catgcagaaa acaacaactg 300  
 gtactggaca ctatgtcaat aggttagtac caaaaatgat ataaaatgac tataaaatga 360  
 ttgtaaaaca tccaagaatg ataataaac agcatggaac aatcaaaaat tatagatacg 420  
 ttggagacgt atcagcatcc ccaagcttaa ttcttgctcg tcctcgagt 469

<210> 9954  
 <211> 466  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-017-Q1-E2-E11  
 <400> 9954

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 tgccccctca tgcagacgtg taccatttag gcagccagtc acagcggtcc gccttggcca 180  
 gccaaaggtc cgggcagcta cagaggccaa tccagaaatg gaaaggccct gacaagatca 240  
 gcaggatcta tgggtgattg atagacgaaa ctgactagga agaggagcgc cgtgtctgtc 300  
 tcctttacc agtttagttc tagttggcac tgctggaaga gtctgctgtg tgtaagacta 360  
 aaacattatg ctgccgcaac ttgtattgtg tctgttgat gcgtgattgc agtgaactcg 420  
 ccgctgggag agctgtatgg atggtagtgt tctggtcttc tggata 466

<210> 9955  
 <211> 472  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-017-Q1-E2-E3  
 <400> 9955

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tgatctcttt tgtccacgc cagggactcg cgatgcaaag ggcgatctcc ccttcaattc 180  
 tagcctcagg gcggtgagg atcggaagaa gggtttttct ggtgagagct catccaagga 240  
 acggtatgaa acaaggcaaa gcacgaagga atcatggaca ccaagctctc agcagaacaa 300  
 gggagtcgag gttacttccc cagtgaagaa cccctcattg aacaagcgca aggggtgggcc 360  
 gcaacagggtt taccgtangg tggaaccagc cccgctcgcc atgacagaac atggggaagt 420  
 gcatgcgact actgaagaag catcaggaaa aagctcagct gcagattctg aa 472

<210> 9956  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-E5

<400> 9956

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 attttacgca ccgaggggtg gtctgcgatc actccatagt gttctgaggg ggattcaatt 180  
 cagcactaga cagccaaaag gaagacacaa taagctggcc aagctcatat gcacgtcacct 240  
 ctgccaaactg aaccatctaa tacctcaccg gagtatgtaa tgctatctag gctgatgaat 300  
 gaattatctg gtgcattatg gttagcaaca tggcatgctg ttctgttttc cctcattgat 360  
 ccggctgtcc attaaactgc ttttaactga acttctattg gattgtctta gcttaattaa 420  
 cctcttttat cttaatgaat aatatctttt 450

<210> 9957  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-E6

<400> 9957

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 atcaagtttg gcaggtgatg caaggcatcg cccaggccct gtggccatcc gtctccatgc 180

ccgaaggtct tggagagctt gcgatgaatc taaagggagc acggcggcgc ttccgattgt 240  
ggaagatatc agcctgccgt caaggcgcta gggaggcctg ggccatggtg aagacgcggt 300  
acacaaaggc tgaccccaac cacatggccg aggtcggtec tgtagggccccc gatgggaagg 360  
agatccttgt aaggtttagta tacggccaag tagagttggc cgcaaagtat tcctagtagg 420  
actgtaaatt agacagcctg ttagatggta ttgaag 456

<210> 9958  
<211> 329  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-E7

<400> 9958

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ttgccatgga atgggttctg tgaagccaga tcgtcatcac tagaatgaga acgagatcct 120  
ggtaaacctg catcagaaga cgcgtcagaa cattggtcgc atgaaagttg ctttctcaat 180  
aatgggtatg tcgaaaacgt gtgtgtgacc acgagcgcac gaatcgcgtc catttgctg 240  
agaatcttcg cgacaagatc accgcgaata cttgcctgog catggcacac atctgttgct 300  
acttgatcaa tgcgattacg cacagcttc 329

<210> 9959  
<211> 446  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-E8

<400> 9959

acggtccgaa attcccgggt ccacatacac ctacatacac atgtcaagca ggcgatgaat 60  
gagattaatg catctgcaag gatgacggtg gctgcaaacg agaaggcgga ggctgagaag 120  
attgtccaga tcaagcgtgc cgagggtgaa gcagaggcca agtacctgtc tggcctgggt 180  
atcgcgccgc agcgcaggc cattgtggat ggctgaggg acagcgtcct gagcttctca 240  
gtcaatgcgc ctggcaccac tgcaaaggac gtgatggaca tgggtgctgat caccagtac 300  
tttgacacta tgaaagaggt tggcgcgtcc tccaagtcct cggcgggtgtt catcccccat 360

ggccctggcg cggtgcgga catcgccacg cagatccgcc acggtcttct tcagggccag 420  
tccgctctg acaactaagc actttg 446

<210> 9960  
<211> 459  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-017-Q1-E2-F10  
  
<400> 9960

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gatcaatgca gctgcaatga tgagggtggc tgcaaacgac aaggcggagg ctgagaagat 120  
tgtccagatc aagcgtgccg aggggtgaagc agaggccaag tacctgtctg gcctcggtat 180  
cgcccgccag cgccaggcca ttgtggatgg cctgaggggac agcgtcctgg gcttctcagt 240  
caacgtgcct ggcaccactg caaaggatgt gatggacatg gtgctgatca ccagtactt 300  
tgatactatg aaagagatcg gcgcacctc caagtccctg gcggtgttca tcccccatgg 360  
ccctggtgcg gtgcgcgaca tcgccacgca gatccgcgat ggtcttcttc aatgccagtc 420  
tgctctgac aactagcagt tggctttgcc ggcataaac 459

<210> 9961  
<211> 456  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB31-017-Q1-E2-F2  
  
<400> 9961

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accatctcat cgaaacatcg gaagacctta gcctctagca agtggtatca gatttccagg 120  
ttgcacggtg agattttaca gtttttcgta gattagatcg agtctgttcg tcagtaccta 180  
cagggtccacg atgaaagcca caaaaagat tagggtagt gcatcatatc cgaaccaatc 240  
tgagcctttg cataatcttt ttagggtttt tgcatgttg aatttgcggt tgcatcgtcg 300  
tgtcaagttg atggtcttag agtccaatct tttagagttt caagttctgg tcataaattg 360  
tcacgccgcc gccgcaacat catcatcgcc catctaccac ttttgcttat ccgccaacgc 420

tctgaatcca gatccatata ccaccagcaa tccgta

456

<210> 9962

<211> 460

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-F4

<400> 9962

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catgctgcct atgagtcatt ttttaggagc aatgtcaggg actcgacatc catttggaac 120  
tccgaatcag gaccggccgc gtcacgagcc tcttgtgtta tcaagtgttc cttgcacgac 180  
cactcgagag cctccgttcc ttctcgggcc atcgcaggag tcccccttc gatcccttca 240  
gttgacctta ccggccgaga tgatctttca agaggaggca atgctaaagc atcggctaag 300  
ttcaactcag gagaccacct cgatgccaga tttgggagcg gtacggctga ctcggtctg 360  
agggcggaat cgaagtaact tcgcatcaa aatggacaga tgacttggaa tttctggaac 420  
atttgctcat tggagtgtc catttaggca gacaggcaat 460

<210> 9963

<211> 457

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-F5

<400> 9963

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ctcatgagat aaggtaatca acttaatttg cgagatattc actcatcact taacgcagtc 120  
cgtccgtcac tgtaatacaa caggcggtaa tcgttgtgga atcatttggt gttctatgct 180  
tatgtcttgg gtgttcattc atgtatgtat aatgcgagca caaatcgggc aactgtggta 240  
gtggccactt ggtaacgagg ttctatctca tcgttctgga tgacttcatg gagcacgcgg 300  
tatgttcaat ctcaatctat cacggtcggc atagcataaa tttgtgaaca tataccgtct 360  
gttgctacgt tatctatata ttgcatcag atcattgtaa cattatctat ttttaattct 420  
atagttcagt actttgcgtg catctatata tggatat 457



<210> 9964  
 <211> 458  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-F8

<400> 9964

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 taagtgatat aaaaactatt cgctaatttt cagtaaacc cttgttcttt tgcttaataa 120  
 acccacagtt ctatttttta gtgagtttaa agacttttta aaatactagc aaaacgaccc 180  
 atgcgtcgca actgaagaaa aaaaaatcat aatctcta atggtcatgacc acattttgct 240  
 gcatcaccca gatacactat cactttcatt ttcgtgaaat cgtgaacaat ttttgaaaat 300  
 catgaacatt tttttaactg atgaacatat ctgaaatcgt gaacattttc caaatacttg 360  
 aacaatttta aaaaattgca aactttgtct aaaatcataa acgttttatg aattcatgag 420  
 cattttatac tatttgcaaa aaataaaaaa ttatgaac 458

<210> 9965  
 <211> 467  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-017-Q1-E2-G1

<400> 9965

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 ggggttcagcc gccccaaatc tgactcgatc cagggttata tatcataaag ggcttcgaca 120  
 aggggtttga ttcgttcttt gagcaaaaag ataaggctcg aataccggag ttctttcttt 180  
 gcttccaaga acatagattc cttcttcaac ccaggatcat accgagggcg ggtatctcac 240  
 tcgcatatct agagcccagc atctctcctg aacgacacct tctgcagact ctactggtgg 300  
 tatttccccga ggcgagggtc aatatgtgca ttcatatcgg tcaggaaacg acaatgactc 360  
 ttctttcttt cggaagcta tgggcacctc acaattctta tacgacatta gtggaagcga 420  
 acattcgtag cattcattgt caccgatcat tgacaaaaga agaaaaa 467

<210> 9966  
 <211> 458  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-G10

<400> 9966

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gttgatgccg gactatcatc catccagagt atgggtggaga acccaccttg caaagccgaa  120
gacttatatc cgcatactat atcatcattg aaggcaagtt cgggggctac tgaggggagtc  180
ctagattcgg gggctctcaa gtgtccgtcc caggagtatg ggccagggtg gatgggtcat  240
acaagatcaa gctgaagact atccttcgtg tccatgtggg acttctccat acgtaaacta  300
caagattaga gtccagatgt atcatttcct tccctgatga accgaccttg taaaaccct  360
aggccccctc ggtgtgtata taaactggag gggtagtcc gtagaggcta tccacattac  420
tatcatcaga atattcacag gctagacatc taggggtt                               458
  
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<210> 9967  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-G12

<400> 9967

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tgctctatc aagtgggtatc agatttctag gttgctcggg gagattttac agtttttcgt  120
agtttagatc gagtctgttc ttcataccta tagtccacga aaaagccaaa aaaaataggg  180
ttagttcatc ccatccgaac caatctgagc cttgcaattt tcttttcatt gcttgcatag  240
ttgaattatc ggttgcatca tcgtgtcgag ttgctggtct tagtgtctag ttcgtttaga  300
gtttcgagtt tttttcacat tagtcacgcc accgctgcat cattatctct tccgctgtcc  360
accacccatc catcaatttc caccacgtgc taccaccat tcattgtcat aataatagtt  420
gggatctagt ttg                               433
  
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<210> 9968

<211> 426  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-G3

<400> 9968

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 gagacgcca tcaacgagta tgtccagtcg tgtgacatcg ttgccttcaa caagatctag 120  
 aatctttggt caccacttg ttgctgctgg attcttggtta ctgggatctg tcgatctgga 180  
 aaacattatt gtcgtcccat ttagttaccc ctcttacaga aatgctgctg gttttgtttt 240  
 tgagtgatgc cctggtcttg aatgtctgct acctttaaag agttgaactg ctgagcgggt 300  
 tgtaatggcg aaacatctat catgtggagt aaaatcagtc ttgataaaa aaaaaaagg 360  
 gagaagtaga agaaaagaga aaaagaggaa gaggggagta aaagagaaga aaaaaaatgt 420  
 gatagg 426

<210> 9969  
 <211> 449  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-G4

<400> 9969

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 gagaagcgga tttgtagtgg aggcgcttta aaaaaggat ttgtagtgga ggcccctacc 180  
 ctaaggtgcc ctaggtagct accgcacaca tcattggttt tcttttttct ttatactctt 240  
 gcgccctaga gtgaaatgat ggttgcttca tccgtccaac ttaatgcggg aaaggtgggg 300  
 ctttgtgatt tgaccctca tcgctcattt actactattg cggcgctacg accggggtgc 360  
 ctccaagtcc aaccgctgct ccgaactata atttggtgca tcacgcgtgg aacaagatgg 420  
 tggatgagcc acatgttggc caaaggggt 449

<210> 9970  
 <211> 429  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-017-Q1-E2-G7

<400>       9970

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ggacaaacaa catgccgaat ggcaggaagc cgctgggtcat catgtatcga cacaaccat   120
taatgagaag aacaaactac cggatgcaaa tatcaagcaa gccgaagaac tgaaggattt   180
aagagcccaa ctatcggatg ctttcaagga gaacaggaag ctgagaggca gcatattcag   240
tatgctcttt aacctgactg tcacatgggtc tcctgtttga aaatttgaca agtttacttc   300
tgtaggtgtg ctaatcagac accccgaagg agaagtgtct ggattccaag gcgaccagct   360
acaagagcta tcaaaggtgc acgagcaagc acgaaaagca ttgaggaaca tggctaaaca   420
tttatggcc                                     429
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<210>       9971

<211>       375

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-017-Q1-E2-G9

<400>       9971

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ctttagcttt tataagagca tggagaaaat acacgaggaa gaaggatttg aaccggacca   120
gttaatggga gacgttctat actacggaga caaccactct gcggtggtgc agctgcacgg   180
ccgacctgac gtggaaaagc tgatcgacga gaatcgcaact ggaggcaagc tgatcgtgct   240
tgacgttggg ctaaaacatt gtggtccttg cgtaaagtg tatccgaccg tgctgaaact   300
gtccccggtc atgtccgaga cagtcgtatt cgctagaatg aacggtgacg agaacgatag   360
ttgtatggag tttct                                     375
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<210>       9972

<211>       446

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-017-Q1-E2-H12

<400> 9972

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gaatatgtgg gtcaacgggc ttaccaaggg ctgggggttca ctggcagatg acctgctagg 120  
ttctgcatat gatcaagctt tgcttccgac cgggtgcttcg gtagttctac atttttatca 180  
tggttgaaaa tgcattccac cgtgcactac tcatcgatga tttgcacata agcttgaaac 240  
caattaacaa ttgcatcgcc tggaggcacg agggagtctg atgttacgag agcacatgaa 300  
gacaaggcag ctaatgtttc tgttcaagat gtcaaccaca tcttcatagc ctgattctcg 360  
tgcctttcct gttgcgttct cccgttgcaa cgcacgggcc cttttgctag tataatctaa 420  
aaattagtat cggaggtttg gaccac 446

<210> 9973

<211> 445

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-H5

<400> 9973

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gcaggactcg ctgagtgatg agtggttcag tcatgtaaca cacataattg agttgccagg 180  
ctgctgggtt tgctacaggt cggcgaatta gatatatcat caaataagag ggttcggtcg 240  
gtctgttctt tattgcctca gggaattatt tgggtctgcg attggacaat tagagtcaca 300  
ggtgtcagat acgtagtcat gatactgggt gtggtgtgta gcgagttgca tttctcacct 360  
ttttcttctg tggtattggg taccgattcg tgctttatct tacttagctg tatatatttc 420  
tccatttgac ggcagtattc tattc 445

<210> 9974

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-H6

<400> 9974

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 tttttcatag ctaagatcga gtctgttctt catacctaca gtccacgaaa aaagccaaaa 180  
 aattaggggtt agttcatcat atccaaacca atctgagcct ttgcatagtc ttttttagagt 240  
 tttgctttgt tgaatttgcg gttgcatcat catgtcgagt tgctgggtctt agcgtctagt 300  
 cccttagagt ttcgagttct gttcataggt tgtcatgccg ctgccgcacc atcgatcatca 360  
 tcattgccat ataccaccac cccagcctat acatgccac tgccatatac gaccaccaat 420  
 ccgagtcgcg atataccatc gccatata 448

<210> 9975  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-H7

<400> 9975

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 tgtacgagct gtatgatccg tcaacggtga tgttcttctt ccgcaacaag cacatcatga 120  
 ttgatctcgg gacgggaaac aacaacaaga tcaactgggc aatgaaagac aagcaagagt 180  
 ttgttgacat tgtggagact gtctacagag gagctcgtaa ggggcgtggc ctggtgattg 240  
 ctccaagga ttactccaca aaataccgtt actgaggtat ctgtgcctgg ctattcatgt 300  
 gcagtgtgtg gcctgctctg ttccgtgata tgcgctgtgt gacccttgat gtaatgtctg 360  
 tcaactttga aagtgtcgta actatgtatt tgtatcttga atatcaacat gtcataaacc 420  
 tgcaaccctt taaaacaaga cctgctgtct attggtatta 460

<210> 9976  
 <211> 466  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-H8

<400> 9976

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cgacaaatgc tctaaaaaca gtaaacaatga gacattaata cctgattagc ggcagcagca 180  
tcatcgacat cgtcctcgtc atcagcattg aagtcagcat catccttttc ctctggatta 240  
acacgagacc acttctttgc aggtggaacc ttgcgcttca cgccgcattt cttcccctta 300  
ccagatgcac cagcaccaag taaagaaggt gtagactcgg cagtggcaag cacacgagga 360  
ctacagcgtg gcgtaccacc aaggcctaac cttcatctt caacaacttc tgcaggcctt 420  
gaaatacgtg ggctctttcg aggagtaact tcaccaacta ctagct 466

<210> 9977

<211> 451

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-A2

<400> 9977

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gaagttggga gctctgattt ccctaattgct cggactgcga tgacatcacc tttggcgaag 120  
gcactgtttg cgatcgaagg agttacaaga gtattctttg gatctgattt tgtaactgtg 180  
acaaaatctg atgagacttc atgggactat cttaagcctg aggtctttgc tgcgataatg 240  
gatttctact catctggaca gccacttttc ctggactcaa ataccgcagc tgctatggac 300  
acagcaattc atgaggatga ttcagaaata gttgctatga taaaagaact gttggagacc 360  
cgtattcgtc cggctgttca agatgatggt ggtgacattg aataccgagg atttgagcca 420  
gaaacaggaa tagtgaagct aaaaatgcaa g 451

<210> 9978

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-A4

<400> 9978

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catccgactc attcgaggac ctatcccca ccatcggcgt ggacttcaag gtgaagatgg 180  
 ttaacattgc cggcaagaag ctcaagctcg ccgtctggga caccgctgga caggaacggt 240  
 ttaggacctt gaccagctct tactacagag gggcacaagg gatcatcatg ggtatgtacg 300  
 atgttactcg ccgagaaaca ttcaccaatc tctctgacat atgggccaag gaaattgacc 360  
 tgtattcgac caaccaggac tgtataaaga tgcttgctcg aaacaaagtg gacaaggaaa 420  
 gtgagagggc tgtcaccaag 440

<210> 9979

<211> 433

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-A8

<400> 9979

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 ggcgaagcat caccgccatc tcatcatgtg ccggaagcag cccggcatcg ccatcggccg 180  
 cctgtgtgag aagtgcgacg gcaagtgcgt catctgcgac tcgtacgtgc gccctgcac 240  
 cctcgtccgt gtctgcgacg agtgcaacta cggctcgttc caggggaggt gcgtcatctg 300  
 cggaggggtc ggcattctcg acgcctacta ctgcaaggag tgcacgcagc aggagaagga 360  
 ccgcgacggg tgccccaaga tcgtgaacct ggggagcgcc aagaccgacc tcttctatga 420  
 gcgcaagaaa tac 433

<210> 9980

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-B2

<400> 9980

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 gaccgtgcaa gagtcaacac ccttcctact ttaaccaca tgggtgggcc ataaccaca 120  
 gttccacagg atcaaaacct gactctcctg tacagccctg ttactaatgg ttatttccca 180



cgcttggctt catatttaat tcacgggccca ccttcctaatt gctctattct ggtatcagac 240  
gcaataactta ctctcgttgc tctgaaaccc tttctcactc cggttcagac ttogagaaac 300  
tatctatccg cttggaacct cttattgtac ctttgtacct taccctcgac atattttatt 360  
ggttcaactc aagagatact cttatgctca ttcattgggtt aaccctagat tgtctctctc 420  
ataagcattc tgtcgtagcc gag 443

<210> 9981  
<211> 436  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-B3

<400> 9981

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ctgtgtacac tcacaaacat atctgtccct taacctataa gtcttcaata caccaaaatt 120  
actaaggggc actaaatgca cttacacttt caccaccttc ttaagtgtgg agttgttgcc 180  
tatctagtga accttcgtca tttgtttcac tccatccctc tggatgtatg cttcgtgttt 240  
cagctcgaga gatgttttaa tgactcacc cgtgagttga tcctgagttg tttgatcttc 300  
gaggagatcg atccttctag agttttccct ttctctctgt tgtcatgttg gttggagtcc 360  
tcggagcaag acatcgagac aaagatggtg atcgaatcaa cgttcttatg aagtggacct 420  
ggattgtgaa gattgt 436

<210> 9982  
<211> 430  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-B5

<400> 9982

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aagactctca ccgggaagga gatcgaaatc gacattgagc ccaccgacac gattgatagg 120  
atcaaggagc gtgttgagga gaaagaaggc attcctcctg tgcagcaaag gctgatttat 180  
gctggtaagc agcttgacga tgacaagact gccaaaggact acaacatcga aggtggctcg 240

gtcctccatc ttgtccttgc tctgaggggt ggttactagt taagctgtaa tggaaacgct 300  
 tgcgtcctga gagaagtgac cattgggtggc atggaacctg tgttgcaaag agataataac 360  
 aaactagctt tgcttagtgg gaggggctgt cttccatggt atctgcctat atgatttgac 420  
 aaaactactc 430

<210> 9983  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-018-Q1-E1-B8  
 <400> 9983

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 tatgaagtac cggcactgcg acgggaagct cgtgctcaag gtcaccgacg accgcgagtg 120  
 cctgaagttt aggactgata aagctcagga cgcaaagaag atggagaagc ttaacaacat 180  
 ctttttcgct ctcatgactc gtggacctga tgctgatata agcgagggtt caggggaagga 240  
 acaggcggag cagcagcaat caaagaaggg acggggcagg aggcagtagt atcatgttct 300  
 gggtttcttt cagaaagatc acaactggga gtggtgggtg gatattttga tcgactcctg 360  
 ttagccatgt tacaactgtg agtgggtgggt ggtctaagag tggtagtagt ttttctaaga 420  
 caatgtgcgc catcgttgga 440

<210> 9984  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-018-Q1-E1-C1  
 <400> 9984

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 atgaactcat tatacaattc tactccatgg cacacttcta tccagatggt aggatagttt 180  
 ggatgtctga aggaacgaga taccagtcaa ccatagagga atgggagagt ctgatcaatg 240  
 ccccagagga gagtgaagat gacttggaca tttatgccaa gaagaaaatg gatcataact 300

caatgtcaca catgtacaag gagatccctg atgaagcact tgagattttc aagtttggat 360  
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<210> 9985  
<211> 449  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-C3

<400> 9985

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tagtttagat cgagtctgtt cttcatacct acagtccacg aaaaagccac aaaaaaaaaat 180  
tagggtagt tcatcatatc cgaaccaatc tgagcctttg cataatcttt ttagggtttt 240  
gctttgttga atttgcggtt gcacgctcgt ttctagttgc tggctcttaga gtctagtctt 300  
ttagagtttc gagttctggt cataagttgt cacgccgcg cgcaccatc atcatcacc 360  
ctaccatcta gcaccaccgc ttatccgcca ccgcttcgaa tccgtatcca tataccaccg 420  
ccgctgtcat ataccaccac cgctgccat 449

<210> 9986  
<211> 443  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-C6

<400> 9986

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acttctccat gcagcccggc catccactgg ttgctctagg gtgcccata aatccatcct 180  
tcagccagta gtgtgtactg aattcttgct atcctatctt gaattctcga ggtcctgaag 240  
atgcagtcct tgtcgatgcc atcatggagt tgttgcatt gaagtagagt cctccattct 300  
cacaccactc ccgaacactc ataccaaccc cgtctactat agtgtagcat ttaaaactaa 360

acaatgtccc gggcttggtg tagcacggtg atgggttcct acctcatgca tactactcaa 420  
ctacaaggat tcaattcact act 443

<210> 9987  
<211> 449  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-C7

<400> 9987

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gtggccatca tgggtggcat tgtgtatttg tctatcttcc aggcacgcgt tccaagtgc 180  
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actcgctctg aaacttccta cccctacgta atggcgtggc ctcctgttct ggtaggcaat 300  
aagggtgaact ctctcggcta gaagggtgctc aactagtaag aggaagaaga aactagaac 360  
tagaagtcgg tcattttgtc tgtactctgt atattacctt ttgttatcag atgatggtat 420  
gttgctatgg ttctatgcat gttttcttg 449

<210> 9988  
<211> 441  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-C8

<400> 9988

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agtttagatc gagtctgttc ttcataccta caatccacga aaagagccac agtggattag 180  
ggttagttca tcatatccga atcagtctga gccttcgcat aatcttttta cggttttgct 240  
ttgttgaatt tgcggttgca tcgtcgtgtc cagttgctgg tcttagagtc gagtctttta 300  
gagggttcgag ttctgggtcaa aagttgtcac gccgacgccg gatgatcatc atcacacctg 360  
ccatctacca ccagcgctta acggccatgg ctccgaatcc gtatccatga tacatcacca 420

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441

<210> 9989  
<211> 445  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-D7

<400> 9989

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ggacaaaaaa gatcaagccc tccggttctg tctaaagagg gtgtacttgt aattgagata 180  
aacatggatc gatctcgggt gagtattaag tatggacttg gccacgtagt agcttcgttt 240  
gcaccgttgt ctaaaaaaaaa cttcatgtgc gccgggtcaac tgctgaacca acaatcgttc 300  
atcaccagtt gactttttaa aataatggat ctaaaaaatt tgacaaattc caaaaagggt 360  
catgattttg aaaaagatt acgagtttga acaaagttca tggaattcaa aaaaagttcc 420  
tggattttcg aaaagagatc gcaaa 445

<210> 9990  
<211> 446  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-E4

<400> 9990

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tcacatttcg ctgaggttgt cacacattaa tgtaatacgc tgggactact acaataacta 180  
tgtatgccat ttctgtctac ttgatgttaa ccaactcaatg tctgcagtac attagtggca 240  
tagttatggg tggatttgcg aaatggttca cggccgctct aaacgattaa actgcactgt 300  
ccgttcattg aacatcatga ctcttcaata tggtcactta gactcaattc actggacgtc 360  
tttttacaat gtcgtaagtg ggacaatcct gtagttactc aactttactc acttgcagca 420  
gatccccctt tccccatctg acatta 446

<210> 9991  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-E5

<400> 9991

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 tcgggaggca gttgagctac cattgacaca ccacgaattg tacaagcaga ttggtattga 180  
 tccaccaaga ggggtgctgc tctatgggtcc tccaggcact ggcaagacca tgcttgctaa 240  
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 gaagtacttg ggtgagggcc caaggatggt tcgagatgta ttccgcttag ctaaagagaa 360  
 tgccccggct ataatttca ttgatgaggt tgatgctata gccactgctc gattcgatgc 420  
 ccagaccggg gctgaccgag aag 443

<210> 9992  
 <211> 459  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-E7

<400> 9992

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 ggcaccgtcc gaaatgcaac ttaatttttag tgcaggctcag gaacaagctg atgactcaaa 180  
 ccatcaagaa gcagcggcat cagtacgtgt agtcaacaag cctacgggca acgacggcac 240  
 cactgggatc gcaggctggg acgaggagag cagcgatgag gaagcgcttg gctgcaatgg 300  
 caaacaacc tgccgcacca agaggaaggg cccgttcaag aagaggtgga ggaagcctgt 360  
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<210> 9993

<211> 443  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-E8

<400> 9993

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cttgccgttt gatgatgcat gccatgccgt ctcatatata cgtagtgatg cttaatgctt 360
tgcttgcttt tcttatcttc gttggtgatg taagaataat ttgattgaag agttattagt 420
gaaagacata gtatgcacaa aaa 443
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<210> 9994  
 <211> 468  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-018-Q1-E1-F1

<400> 9994

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caccataa catctctaga caaccatagc tttgtttaat cctccatttt taagagtttt 180
gtcctttttt tctgtttcta tggggtagtg gagcttttgc tgtgtttttg gtcagtagta 240
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aaacagcata ggacatcata ttggaattac ataatatagc atatagccta gctaatatcc 360
ttgtttacgc gattttctga gaacacttgg gagttacgtg tcatgtctat tatccatttt 420
ggtaatacct tgtgattggt agaaagtaca tgatttttga tacataaa 468
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<210> 9995  
 <211> 445

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-018-Q1-E1-F3  
  
 <400> 9995  
  
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 cggctgggag gatggaacaa ggctccta atttacgggt tggctctaaa atggacaagg 240  
 gagtctatat atataaggaa cagggggggt tggatcatct gatcgaaatc agacggtcga 300  
 gataaatacg ttaggtagcc caaataagaa aacggagatg ttttatagat gtttggggat 360  
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<210> 9996  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-018-Q1-E1-F6  
  
 <400> 9996  
  
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 atgaaaccga cctcaacctg gtatggattc tgcgatttg gtcactatca atgttgatat 240  
 gaatgatttt gtttaataac atattaatat ttttagataa tgaactacat ctaaaacttt 300  
 tttttatgta gtgaagtaga tctgaacctc gctgttggag ttgatctttg agtcgatgtt 360  
 aagtaaaagt tacatctact tgttgatgcc aagaccgcca tttcgttcct aaatgtccct 420  
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<210> 9997  
 <211> 116  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB31-018-Q1-E1-F8

<400> 9997

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<210> 9998

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-G1

<400> 9998

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aacggtgcag tcgtttgaac ctcaaacgc agtcatttca gaatctcaag actgatgcct 180  
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cggcatacac caccatgtgc aggatcacac aaggaaatct gttggagcaa aaccttgccc 300  
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tagagaaaga agaaagtga gagttctttt gagaagtcgt ttgggaatat ttccggttct 420  
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<210> 9999

<211> 421

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-G3

<400> 9999

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tcctaaggct gttgcaaagt ttgcagccgt cgcggcattg tgcgtccaat acgaagccga 180  
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ataaggaaaa atgagccatc aattgttggt cttgcggggc gcgtggcagg cggtttttgt 360  
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a 421

<210> 10000  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-018-Q1-E1-G8  
  
<400> 10000

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gtgcaagtgg agatccatgc cgcggtgaca ggcgctgtga cggcgtcatc cacagcgaga 180  
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cttgtctagc cgagctgaga gagtcagtta gtttgtagc tgcgtgaggg tcgtgtgcct 360  
agagtgatcc taggaggaag aagtggtaa gataagatta gatgggtgca tgtgaagtgg 420  
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<210> 10001  
<211> 374  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-018-Q1-E1-H1  
  
<400> 10001

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acggtgactt catgatatgt tccggataca gaacgattga tcgatcattt tatggatgat 240  
catcagccta tttgtcattt catctacgca tctacatgct ggactcatga ttctgatata 300  
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374

<210> 10002

<211> 441

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-018-Q1-E1-H3

<400> 10002

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gaaagcaggg aatcccttac aattgaatta agatcatctt ttttgtgggg attattatgt 180  
aacgtangga gtggaggaga ctgttcatga gtcggtcatg acaaggttat tatgcaatgt 240  
anggagtgga ggagaactag ctgcatctcc agcggcaagc aggtaatccc tttcaattga 300  
attaagatca aattaggaag aggaacggtc caggctctga tagatgcgcc ttatgtgggg 360  
cagttgaaaa caccgagcac attttttttc attgctcgct ggccaaattt ctttggagtt 420  
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<210> 10003

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-H6

<400> 10003

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taagattcat tagctttctc attctactct ttcacaaagg aatgcgaaga gaactcaatg 180  
gatcttatcc tattcattga atagatttct tttttattag agtatcggca agaagtcttg 240  
gttattcact ctatttttaa gttttattta agtaaaccat gcacaatgca taggaactacc 300  
ccccattttt caaattttta atttgaaata ctttaattaa tttttagtcc ttttaattga 360  
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<210> 10004  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-029-Q1-E1-A11  
  
 <400> 10004  
  
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 ggctaaaagg catatacgat ggacaacagg tcaataatcc ggtcataccc ctgtttagtc 180  
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<210> 10005  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-029-Q1-E1-A12  
  
 <400> 10005  
  
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 ggcgaatggc aaagcttcta aaatggacgg gagagaggtg gtgacgcatg gctgggagac 180  
 gtacagattt gaggaaatat gacgcatgag gtttcatatt aaaaaaatga tagcctttgt 240  
 aagaaaagat atgacgtaca tttgtgcaaa ttgataatga catgcatgct atttctgaaa 300  
 aaagaagctt ctctgttggc atccctgatg gtaccttttag atacgcagga agagaaatgg 360  
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<210> 10006  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-C12

<400> 10006

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aaagggagga taacaaagt tt caataaaaca acctttatct gcaaaaaata gaagtgatgt 180  
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gccaatgtgc tccaccccaa acttagcaac tcgaacacca tcccatgtct gcaagaattg 300  
aaacatatag aatccacaat catgcctgca ataaaaagaa taaaaacttt agtttcacaa 360  
aaatgaacgg aaaaaacttg aacagtatgc catagaacgg ttgtacagaa cgcacccat 419

<210> 10007

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-D10

<400> 10007

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accagcctgt gcctccctcg aggatgccac cattcttctg aagaaagacc atttctccca 180  
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ctggatttca ttcaaattggc tgtggtgact tatgagatcg catatgttgc ggtggtcggg 360  
attgtttgta aacgtttgcc gaaactgctg ccgttggaaca tgattgtgat gccattactc 420  
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<210> 10008

<211> 359

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-E12

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ctgctactat cgtccatttg gtccaagtgg tgcttgcaac gtcggcactc atctcctcta 180  
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gcaccgtgcc atgccaacga catactgaac gcggagacac aattaacttt tatgtgtatg 300  
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<210> 10009  
<211> 455  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
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<400> 10009

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ggttgaaaag ggtagaaaga catgaaaatg caatagagaa tgaacaggtc aatcagtttg 420  
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<210> 10010  
<211> 328  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-F11

<400> 10010

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cgacatccag gccaaagaagg ttaacaccct gatcaggcct gatggcaaga acaaggcgta 120  
cgtgaacctg acaccaaact acgatgctct tgacgtggcc aacaagatct gcatcactat 180

aaatcaagat ggactgtcct gcaactaggcg cctgtgtcct ggtctcctat gttactggaa 240  
 ttatgtaatt gctacttagc aaaggggcac aatgggtcca ttgcctacca tatcgccgca 300  
 caatttcacg aacttgatgc aatctcaa 328

<210> 10011  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-029-Q1-E1-F12  
 <400> 10011

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 tatcatcgct cgggtcccaat gtaactctga gatcttttga caaaaaaggt atatttgaac 120  
 ctaataacac gcaatatacg gctgtctcag caagagcaac tcgagcgggc tgagagcagg 180  
 aaaaaatcta ttttaaacc tgaactcata gacgttcagc atatcaaacc ctcaagtcca 240  
 aatccacgtc gtttgcacct gaactatgca atctcggttt aattcgaaac ctggcatctt 300  
 ttgaggaatg aaaacgctga cgtggccatg tcaatcgga ttcgtctgac tgggtgcacca 360  
 ttgagcggca tcagtgatca c 381

<210> 10012  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-029-Q1-E1-G11  
 <400> 10012

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 gtgttgtgcc aaaaggaaac ctcaaggat atggagaaat agccaaaatt gaatacacgt 120  
 gtacctcagg ccacttctc gagtagtaaa aaatagagca taaatattgc aagattttca 180  
 aaggatanga acaacgctaa tttatagtgg tggaatacag atggtgcact gccgagccac 240  
 ccatgtgtca tatatttgtt ttatgtgctt ttctatgata tcacgagcg tacaacaag 300  
 ctcgtgggaa aaaaatgatg gcacatcca ccacgtcgaa aacaatacgg aggcataaaa 360

ctaagtgtgc atcatagtac gccaccaacc ttaagtcgag tgtgacaaat aagtaaatca 420  
aagctcttac catgtgtaca cttcaaata caa 453

<210> 10013  
<211> 444  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-029-Q1-E1-G12  
<400> 10013

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atcatgaatg agcttttcac agctgttcgt ggaaaagggtg cttttctcaa tggttctcca 180  
attaaaacat cgcctcaaaa tgagttgggtg aaggctctta tggtgacaga ggtagggacc 240  
aaaagagaca agtccacttt ggatgataca accaacagaa ttaataagtt actattcaag 300  
attagatcta tacgtatgtg tggctctttg gctctaaaca tgtgtggagt tgcttgtggt 360  
aggctagatt tgtgttatga gatcggtttt ggtggccctt gggatgtggc tgctggagct 420  
ttgattctaa aagaagctgg gggg 444

<210> 10014  
<211> 409  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-029-Q1-E1-H11  
<400> 10014

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tctctgttgc atacaagaat gtgattggag cccgccgtgc ctcatggcgc atcatctcct 120  
ccattgaaca gaaggaggag agccgtggca acgaggaccg ggtcacactc atcaaggaat 180  
accgtggcaa gatcgaaact gagcttatca agatctgtga tggcatcctc aagctgctcg 240  
aaaccacact tgtcccgtct tccactgcc ctgagtccaa ggtcttttat ctttaagatga 300  
agggtgacta ctacaggtat cttgccgaat tcaagagtgg gcctgagagg aaggatgctg 360  
ctgacaatac catggtggca tacacggctg ctcaggatat tgctttggc 409



<210> 10015  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-H12

<400> 10015

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 attcgcccggt gggctcgccg atgagcaggg attcactttc aggatttctc actatgtgct 180  
 ccacccttga gggcatgcta attcctagtt ttgtgtgtgc ttatctgcag caaccatgtc 240  
 agtggttgtc agtatcaaca tgaacgcaat tcaaaagttg ccggcatgaa gtgagcaacc 300  
 taagctgagt aaacgaaaaa tgtaatgcaa agcatcttat gattcttcaa agcttctaaa 360  
 atgtatggtg tagatacctt ttttgccgag aatcttcac cgtggtagta agtg 414

<210> 10016  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-A10

<400> 10016

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 cacagtgcag cgactcaact gccagtctgg catcacgac gcacacgaga ggacgacgac 180  
 gaagaatacg gccatgggag cttgcgatac ttgaaacgg tccaagtctt gggcgatgct 240  
 cacatgtcgt gccactgtg gcctcaatgg tcagtgccat gagtgatgat gatgatgagc 300  
 gccttttggg cgcaggagaa gcatcacctg caagatgtta gtgagaacat ctccaacagg 360  
 cgtgcaacat gcggcgcgca actcattcct tctttgggag ggtctacaag ctgacgctct 420  
 aaacgatgca cacttacgt 439

<210> 10017  
 <211> 341  
 <212> DNA

<213>      Triticum aestivum

<223>      unsure at all n locations

<223>      Clone ID: LIB31-030-Q1-E1-A9

<400>      10017

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ggagaaaatc cggggaagcc aagttaacaa ggcaacaaaa attccaagaa accaaaacaa    120  
ggggaataac aaggtaaatt caaagtaaag ttaaggggaa ttatccggca aacaaaatgc    180  
ctaagtagga caatcatttt gatgaccctt tagcagcgag tagtgagaac ttacctaatg    240  
aagaagctat tcagttcacg gagcagcatg gtagcagaag aaagtcaacc tcaaaggggtg    300  
gaacaaaaca tgtgcccaca ngaatatcag agaaaggtgc c                            341

<210>      10018

<211>      455

<212>      DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB31-030-Q1-E1-B10

<400>      10018

attcacgggt cgacgaacat gccaaaagag cacacgattt gaggatatca cgagatatga    60  
tggtgaacga gctccttata cgaggactca gatgaagaag ccttcggcaa gtagatctgg    120  
aatggcatca atagactatg atcttgatgc tgacttctct caccgcaagt ccgggcatag    180  
ttgatctagg cagcatgctt ctatggcata agcagcacct ttggactttg tcattcgtcg    240  
atagtccaaa attgaccccg aatagatact ggctcgtgct aagcaacaag ttcaagacca    300  
gcgccggctg acgatgagct agaaactgca gtagctgaaa acgccgaata agaaaaacct    360  
ccaagcttcg aagcttattg ttgaacggcg tgggatggtc aaatacctgt aagctagaca    420  
cccccgacag ccttgcgatg catatgattg tgtgc                                    455

<210>      10019

<211>      400

<212>      DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB31-030-Q1-E1-C11

<400>      10019

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 tacctcgaac gcgtcattct ggcaaaccat gataaggata acttcctcgt gccttacttt 120  
 cccgagtaag tcctccctc aaccgccccg tatcatatga attcttagat ttcgatcggt 180  
 tttctttaa cttctgtgt tttctgaagt gacacacatt gcacgctcaa cctcctaagc 240  
 cccaaatatt ccatggccac gtatttcgaa cgggaccgcc aatcaaacgt tgactactca 300  
 aatgtcaaca aggttcttga tgatgttctc cagggtacg tcaaactctg aggcaccttc 360  
 accaggccta ttcgtacgta cggcaagcat gtgttctccc 400

<210> 10020  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-030-Q1-E1-D11  
 <400> 10020

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 gaacaagaac aagaagcttg ttaagaagct agccaagaag taccatgctt tcttggcatc 120  
 agaggccata atcaagcaga tcctcgtct ccttggccct ggtcttaaca aggaggcaa 180  
 gtttccact ctggttagtc accaggaatc tcttgaagcc aaggtcaacg agacaaaagc 240  
 tacagtcaag ttccagctaa agaaggttct ttgcatgggt gttgctgtag gcaacttgct 300  
 gatggacgag aagcagatcc aacaaaacat ccaaagagc gtcaacttcc ttgtgtcnct 360  
 cctgaagaag aattggcaga atgtgaggtg cctgtacgtg aagagcacat ggggaaacgt 420  
 gtacgtgtgt tctaagtgtg tgcg 444

<210> 10021  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-030-Q1-E1-D12  
 <400> 10021

cacgggtcga cattgacggg aaggacattg catcaactcc ggattcaaag cagggtacgg 60

aatcttcgaa acttcctgtg gaaactgctg ctgcatccac tgcggtgccc cctcatgcag 120  
acgtgtacca tttaggcagc cagtcacagc gttccgcctt ggctagccaa aggtccgggc 180  
agctacagag gccaatccag aaatggaaag gccccgacaa gatcagcagg atctatggtg 240  
attggataga cgaaactgac taggaagagg agcgccgtgt ctgtctcctt taccagttt 300  
agttctagtt ggcatgcaa aaacctagtg ctggaagagt ctgcgtggtg taagactaaa 360  
acattatgct gccgcaactt gtattgtgtc tgttgtatgc tgattgcagt gaactcgccg 420  
ctgggagagc tgtatggatg gtagtgttct gg 452

<210> 10022  
<211> 354  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-031-Q1-E1-A10  
<400> 10022

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ctggatttgg ccaggttcct ggcacatggc acttcagggtg cacgatcctt ccgcaggagg 120  
agaagatccc ggcgatcatc tcccgttca cggtgttcca tgagacgttc atggcagagt 180  
accgtgacta aactggtgta acatgtgtgg gattacatgc aagcctcgtg gatcttccct 240  
aggcgttttt gccccggtt acagcagtat catgtagacg agacaaaata aagcaaattc 300  
atggcttgtg tgtgtgatat actatatcag attccgaaac agatttacag tcag 354

<210> 10023  
<211> 429  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-031-Q1-E1-A8  
<400> 10023

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gacatgagga ttgctagcca ctcccggggc ccctcctggt atttcttctt ccaatatttt 120  
ttaataattt taaaataaat ctccataaat ttttaggtca tttggagctt ttcggagaat 180  
agctatctca agtgtaactc ttttcaggtc gagaattcca gctgacggca attttcctct 240

ccatataaat cttgcataat aagagagaaa agacattaaa attgcatcat aaagtgaaat 300  
 attgacccaa aacattataa atatcagtag gaaaacatga tgcaatatgg ccgtatcacc 360  
 gttggtgtac cggagcataa ggctttcgcc tgaatccatt cacgcaccac actgaggaag 420  
 ctogaacac 429

<210> 10024  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B7

<400> 10024

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 atatttgagg aagtaccta tggtactagt tttagagggg tggtagtata tgttcatgga 120  
 ttttaccctc atgcgggggg aacagttgtc cgacctggga gatttcctgg ccacattaat 180  
 ggtgtttacc aactgggtga ttttacatac cttgacggag acttcacatc tgagtctgga 240  
 acgtctggtg gaccagttac catgggagat agagttattg gagtaaatgt gcaaagtgtg 300  
 ggaggatcga gatgcgcggg tccccctctg aactataca tgacatttat gaattggtgt 360  
 ggttttaatg gcgatacca tacaattgct gcgatgatac aacgccttgc tgctaataca 420  
 gttttgcaat gtcaagcatc a 441

<210> 10025  
 <211> 473  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B8

<400> 10025

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 gcgtccctgc cccgaatatc tcaattgctg catggcactc caaaaatctt gtgcaagtcg 120  
 tctggggtaa acactatttc ctggttggcg gttgctgtcg atgacgattg taagcatgcc 180  
 gtcagtgtat ctgtttgac catacaaggc cgacgagcgc aaggatgccc acacatcat 240  
 cttgacaacc atccatgtaa tcggcatgca cagggcgcct gaaagtccac ttgctttgac 300

catggatgca caacccaaaa ttttggctcg caccagtggc agtagcagca gagaaaacat 360  
gatttagtgc aacggaagtt catttcataa tgatccgtcc aaattacatc agccaaactc 420  
ttacgactta atcaacggac gcgcgcgcgc aacacgtgat cgtccctcgt cag 473

<210> 10026  
<211> 408  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
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<400> 10026

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tcaaggetgt caaggactcg ctcgacctct gtgccgccgt cgaggatgtc cagatgctgg 120  
cgtttcatgt ttcgtcacga gcatcaagat gaagaagtcg gaagaagcat agtccaagct 180  
catcggagct agttcaagga gtaatgaagc ccttgatgct gatccgtatt ggaacaaatt 240  
gaagcacgaa ctgtgacata tagagcttgt tatactgtag agcttgatgc tcatcggctc 300  
atgtgacata ttgtacatct gtagagcttg ttatattgtg atcgcatttg tatgtgctga 360  
tgtaacagat tgttgcttct tgttatttga agtattacac ctgtttac 408

<210> 10027  
<211> 448  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-031-Q1-E1-C6  
<400> 10027

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attaaccag cgaggagcct tggcgctgcc atcatctaca acaaggacca tgcctggaat 120  
gaccattgga tcttctgggt gggcccttct gtcggcgctg ccctggcggc cgtctaccac 180  
caggtgatca tcagagcgat tcccttcaac aagagcaggt cctaagccgc ctgcctccg 240  
ctacaaaaag ctgatcggga ataacgagct tctttgtgat gtcttgtttc gagcgcctag 300  
taccgcatcc gccgtcgatt ctctgaaga tggtctctcc tgactgaatc cagacttacg 360

tgtgttaaga ctccagtgtg agtgtgtgac agttgtgtgt gctctcattg tggaagattt 420  
aagttataat ttgttgatgt ggcttccc 448

<210> 10028  
<211> 464  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-031-Q1-E1-C8  
  
<400> 10028

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aagattgtcc agatcaagcg tgccgagggt gaagcagagg ccaagtacct gtctggcctc 180  
ggatatcgccc gccagcgcca ggccattgtg gatggcctga gggacagcgt cctgggcttc 240  
tcagtcaatg tgcctggcac cactgcaaag gatgtgatgg acatgggtgct gatcaccag 300  
tacttcgata ctatgaaaga gattggcgcg tctccaagt cctcggcggt gttcatcccc 360  
catggccctg gtgcggtgcg cgacatcgcc acgcagatcc gtgacggtct tcttcaaggc 420  
cagtctgcct ctgacaacta gcagtttgct tcgcgggcat gaac 464

<210> 10029  
<211> 463  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-031-Q1-E1-D5  
  
<400> 10029

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gcagcagtag caggagccaa agaagcatca acaacaggga tagcagcacc agaagtttgg 180  
ccacctcaa gaggaacacg cttcgctcgt ccatactgat tcgaaagggg cgttggtgtt 240  
gttggtgcag caatgcgata ggtgcagccg gcggtggttg tggaaaatgc gcgagcaatt 300  
cattgaactt gctatcaagc tatgtttcga acgtcttctc aatgccatct atcttctcca 360  
tggcctcgtc aaatctatct agcacatctt gcacctgtcc actcatcatt tgctaaaatt 420

tatcatgtag ttgtttgttc gtcaggttct cccaatcaat ctc

463

<210> 10030

<211> 375

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-D6

<400> 10030

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aagggatggg gcctcaacct cggcgagctg gccaggatct ggaagggcgg gtgcatcatc 180  
cgcgccagct tcctcgaccg catcaagaag gcctatgaca ggaacggtga gctcgccaac 240  
ctcctcatcg accccgagtt cgcgaggag atcatggaca ggcaagccgc atggaggagg 300  
gtcgtctgcc tctccatcaa caacggcgtc agcaccctg gcatgtccgc gagtctggcc 360  
tactttgact cctac 375

<210> 10031

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-E3

<400> 10031

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attactcccg caaggcgtag ccccttgac accctgagaa gctactggtc gtcgagaagt 120  
ccgagccgag cgcgatccat gctaccccaa caacaactcc tccaacgccg tcaagaccga 180  
cgaggcacga cggcgagggc aagcgcgcc accgcaaagg ccacgctact tgcggcgcg 240  
gtaccgacga ggacacgggc tctgccgccc cccacacaca cacatcgcca tcatcatgca 300  
tggagaacgt gaagcgaaga cgacgaaaac gaccacacaa ctcaatcgaa ggtatcctgc 360  
ggagcaaccc gcgggagtaa ttaaccggga gccttccgaa gccccgggaa ccaggagatc 420  
acacaatcgc cacagtc 437

<210> 10032



<211> 430  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-031-Q1-E1-E5  
  
 <400> 10032

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tgtatcttgt ggatgctaac aacgattttc agtacatggg actgttgtcc gggtcgagga 180
aggtttacgc ccagcggacc tagatgtgct ggatgtttta gactgtagaa gacgacgcat 240
cgcgtgctga atgaatgttg ctgagactct agtatcgagc tgtgttgacg acgccgactt 300
gcttgggctc ccggttgtaa atttgctacg ctacctattg atagagatgg ttttcttggt 360
gaatttgat cttgctgggg ttgtaatttc atcatgagag gaaatatctg catcagtttt 420
ttgctagtag 430
  
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<210> 10033  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-031-Q1-E1-E8  
  
 <400> 10033

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tggcaccact gcaaaggacg tgatggacat ggtgctgac acccagtact ttgatactat 300
gaaagagatt ggcgcgtcct ccaagtcctc tgcggtgttc atctcccatg gccctgggtc 360
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caactagta 429
  
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<210> 10034  
 <211> 448  
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F5

<400> 10034

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tattgctgga ggagccacgc agaactctat cagggttacc caatggatgc ttcaaactcc 180  
tggtgcaaca agttacatgg gttgcattgg aaaggacaag tatggtgagg agatgaagag 240  
cgccgctaaa gctgcaggag ttactgctca ttactatgag gatgaggctg ctcctacagg 300  
cacatgtgct gtctgtgttg ttggtggcga aaggtcattg attgcaaact tatctgctgc 360  
gaactgctac aaatctgagc atctaaagag gccagagaac tgggcactag ttgagaaagc 420  
gaaatacatc tacattgctg gcttttttc 448

<210> 10035

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F7

<400> 10035

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aacttccaaa cccatgcaac aaaacatatc agatccatac tcaattctat agcaacaata 180  
gtttaggcgg agtacaatcc aagcaaaaag tgtttaaatt ctagcttcac gggattcctg 240  
atggggcaaa atccagacct agttggccga ggcctgttc ctgggggcag cctcgggtacc 300  
ttctctgaag ttgctcttga acctgcgagg caggtggcgc atgtacctca tccttcagtc 360  
gccagtgtc ttgcgcctga tggccttcac actccagttg tacttgcgga tgcgggcggc 420  
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<210> 10036

<211> 377

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-G10

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catctccatg ggccatcaaa cagaggatgt tatcgggttt tgtgtttact tcaatcctgg 180  
ccttaacaag atatgtctcc ctaaactcgc gtatgaaggg agactgactg gaaaaggcac 240  
tcctggaaga gactcaataa tatgcaggga cggatattct tggctcaag cactactacac 300  
agttctacaa aactctacct tggtgacccc gtatgtcgat gaacacaaga acagtctacg 360  
ctccaaacac ccggagc 377

<210> 10037

<211> 237

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-G5

<400> 10037

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agcacggcgg caagcctaag ggagttcaac ttagaactcc aaaagagcaa cggccaaacc 180  
ttccaactag acaggaacaa cggcgacgca actgtgggca acaatggccg ggtcgaa 237

<210> 10038

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-G6

<400> 10038

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gaggggattt gaagtaattt ccaaaatctc acccggtgggt atttatatcc cgaccctgtc 180  
agtgtgaccg agtggaaaca ctcggtggca ccgagattgc agaatcgcaa gtggttgctg 240

caactcgggtg tgaccgaagt gttcaaactcg gttggaccaa tatgtaaacc tagatcaact 300  
tagtgatctt ggtttgaccg aaatggatgt ctcggtcaga ccaaaatgca caaagagggt 360  
ttggaagttt aagtctatga tgaatcgggg actctgagtg ctcttcacac agagtgggtc 420  
aaatctgact tgatcaaact ttgtgatg 448

<210> 10039

<211> 453

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-G8

<400> 10039

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ttgtcaatga aacacttttag taactgcaa caggtgatta gcattttatt catgtgacga 180  
caaaaagga aataacagcc aaagagtaaa ccaagaagaa aaaaatagca aaatcctaac 240  
cttgtcctgg ccaccaacat cccaaacagt gaagctgatg ttcttatact ctactgtctc 300  
cacgttgaac ccgatgggtg ggatgggtgg gacgatctcg ccgagcttga gcttgtagag 360  
gatggtggtc ttcccggcgg cgtcgaggcc gaccatcagg atccgcatct ctttcttggc 420  
gaacagcgcc ccgaacagcg tcccgaacga cag 453

<210> 10040

<211> 390

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-G9

<400> 10040

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gctgccaaag tggttgagca gctgagcggg cagtcgccag ttttctccaa ggcgaggtac 180  
actgtcaggt ctttcggcat tcgtcgtaat gagaagattg cctgctatgt gacgatcagg 240  
ggtgagaagg caatgcagct tctcgagagt gggctgaagg tgaaggagta cgagctcttg 300

aggaggaact tcagtgcacac tggttgcttt gggtttggtta ttcaggagca cattgatctt 360  
ggcatgaagt atgacccatc aaccggcatc 390

<210> 10041  
<211> 471  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-031-Q1-E1-H5  
  
<400> 10041

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ttggcgacgca cccgacgaag ttgacgggtga ccaagttgta caccctaaac gggccgagat 120  
tcaccttcaa gaactccgcc ggcggcgagg ccatgctgga ggtggagtcc cgcattgggt 180  
tcatgagcct acgctcacac caattcctcg acgccacatc agcccaaccg gtgatccatc 240  
tccaggagac cggccttgag gagcgtaagt gggaggcgta caggggcaac agcacgagag 300  
aaagcgacaa gatcttcgac gccgtgaaca agtcatggta tttcttcctg atggggacca 360  
agatcgaagt gttcctccgc aagtcctccg acgagccgaa accagcaggc gtcctcgctg 420  
atggcaactc ctccggcggc atgcagaaac cagcagactt cgtcgtcctt g 471

<210> 10042  
<211> 446  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-031-Q1-E1-H7  
  
<400> 10042

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aggaaggaga tcgccctgtg gttccctgaa ggcattgcag aatggaggag cagccaacaa 120  
aactggattt atgaagccca agaagtgtca tgagtggttt gagtgcaggc ttcattaagc 180  
atctacaaa ctagtctttg gttgtttaca gttttgagat ttgtatcttg ggaaccttgt 240  
ttgtgtgaac tgaagatata tccttgtgct tgagcatgca agcgttatct gctgctccat 300  
atctgatata tggtaatgag ttgcatttca tgttttaaaa agaaaaacag cgacggattg 360  
ggcaagcgag tccggcaaga aacacaaatc ccaggggaga taaggccaaa aaaaaaaag 420

cggccgccct aaagggatca agctta

446

<210> 10043

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-A11

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aagacactta ctgggaagga aattgagatt gatattgagc ccactgacac aatcgacaga 120

atcaaggaac gtgttgagga gaaagagggt attccacctg ttcaacagag gctcatctat 180

gctgggaagc aactcgctga tgacaaaact gctaaggact acaacatcga aggtgggttca 240

gtgctccatc ttgtgcttgc tctgaggggc ggctcagtaga tgcaacctcg acgtggaccg 300

taaaggccat ttctaccaga acttgtttgc agacctagat ctgtgaattt gccggttgat 360

tgaagtgcc tgaattgac gcatttgtga agtcagctgt cacctgtact tggatggaat 420

tgtttgaact atatgcttgt ccg 443

<210> 10044

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-B10

<400> 10044

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tttcgtgctg tgacagagaa gtcagagctg cggtcagcga cgccattgcg gcaacgatga 120

ctccatgagg gtgggttttca gcgggcgggt ctctccgggt gttgcgttgg actaggtcgg 180

tgcgaggcgt gcaactttct catgtgaagc tcttcagcaa aatcggagct gtcaagtcct 240

cgacgcttcg gtcgattgtt tggcgtttgc ggccaggctg tctgtgtgtg ccccggtggg 300

gttgtaatct aggttttcac ccggttttcc gctaattaac cgggcaactc tcttctgctt 360

aatcaatgaa aatggcaaat cttttgcctc gttccaaaaa aagaagtaag aacaaaaaaa 420

aaaaagcggc cgctctagag gatccaagc 449

<210> 10045  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-B11

<400> 10045

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 taaaaaattg aatatatcat ttgaaatatg ttaaaaaata tatttgaaaa aatgtcagtc 180  
 aagcaattga aaaatattaa aatgttatta aaaatgctat tcttttattt gaaaaaaatt 240  
 aatgaagcat ttcaaaatat taaaaatatc tatagaaaaa aggttgacca tgcattaact 300  
 ttttttatct tgtatatgag aaatgttgat aaaacatttg aaaaatgttt aaatgtatat 360  
 gagaaatgtt gattaaatgt gaaaatttta aaaatatcta ctgaaaaaag gttgaccaag 420  
 tattataatt gttaaacttg tatgtga 447

<210> 10046  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-B9

<400> 10046

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 gccacaagcc cgaccgaaag gagttcacca aggtggccat tcggacggcc atcgggttcg 120  
 tcgtcatggg ctctgcggg ttcttcgtca agctcatctt catccccatc aacaacatca 180  
 tcgtcgggtc cggtgatct cgtctccga ggtgaggggc cgcaggacga gaggatgggtg 240  
 tccattcatg gaggcggcgc tggttttctt atcctcgtac cttaaagcaa ttcatttagg 300  
 acttcattgt agaggacagt tcccttggtt tttcatttga aacagttgta ttggtagacc 360  
 tggagcagtt ttgaacctga ttccggctag gccgtaatat caagcagtga atgacaagaa 420  
 ttgaaaccct aaca 434

<210> 10047

<211> 441  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-C9

<400> 10047

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tcctaaggct gttgcaaagt ttgcagccgt cgcggcattg tgcgtccaat atgaagccga 180  
cttccggcca aacatgagca tcgtcgtcaa ggcgctccag cccctgctga atgcgcgagc 240  
agcccacccc ggggctgagc atgccggacg ctaagcacca ctccggcctt ttgtatgata 300  
tagataagga aaaatgagcc atcaattggt gttcttgcgg ggcgcgtggc aagcggtttt 360  
tgtacatttg tgattattct tccaagttg taaccctcga gattctagta ccagaaatat 420  
ttgattcttt gtatcgggtg c 441

<210> 10048  
<211> 436  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-D10

<400> 10048

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aggctcaggt ccagctggga catatgctgg ctcagtccta tttaacttat ggtacattca 120  
aacactagtt ctccctgtac ctccaaagag atccattatt tttttgttct ctactttagt 180  
taatttcctc tctgaactct tggttgagca cattggattg ggtataaaca tgccaatgta 240  
attcagtaca agttctccat gatcaatgag tacggagAAC ctccggaatc ttgcagcttc 300  
ataatggaag ctgctccctt tttgcctatt acgtttgaga atcatagcaa ttctagtgat 360  
tgtgcattgt aagcataata agaaaagtca tctagcacac agagtgggtac tgaatttgag 420  
ataatgcatc gataaa 436

<210> 10049  
<211> 439  
<212> DNA



<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB31-032-Q1-E1-D11

<400>       10049

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gcggatggta ccaaggagca gaaaacgagt cagacaagca accacgcacg ccgacaaacc  120
tgggggagtt cacttacgac ctcgagaaga gcaacgccc gaccttccag ctagacagga  180
ccaccgccga cgcgtcggtc gtcaacatgg tccggctcga cttctcctcg aaccacgggc  240
agcctgagct gacgtgcac taccgcttca ggggtgcatt cagcgcagct ggctctctcg  300
gcactgcggc atcgtgaggc ctgatctagt tagtacctgt gtgcctggga ccatacggtc  360
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<210>       10050

<211>       280

<212>       DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB31-032-Q1-E1-D9

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tcaagaccaa gcgcactatc cagtttggtt actgggtgcc cactggcttc aagtgtggta  120
tcaactacca gccaccaggt gttgtcccag gcggtgacct tgccaaggct cagagggctg  180
tgtgcatgat ctccaactcc accagtgtcg tcgaggtctt ctncgcatt gaccacaagt  240
ttgacctcat gtacgccaag cgtgccttcg tccaactggta                                     280
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<210>       10051

<211>       437

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-032-Q1-E1-E10

<400>       10051

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 catctccatg ggccatcata cagaggatgt cattgggttt tgtgttgact ttattcctgg 180  
 ccttaagaag ataggtctcc ctaaatcgcg gtatgagggg agactgactg gaaaaggcac 240  
 gcttgagggg gactcaataa tatgcaggga tggatattct tggctcaag cacactacac 300  
 agttctacag aactctacct tggtgacccc gtatgtcgat gaacacaaga atagtctgcg 360  
 ctccaaacac ccggagcagt gtgacgattg gattacatgt gaacacatca ggactttcag 420  
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<210> 10052  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-032-Q1-E1-E12  
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 gaaatcatca ccgactaggt cggcgcagtc cacatacaga gtcaaccccc aggccccagg 180  
 atggacgaaa aggttgact gaacctgctg atggttgga gacggagcta tctagcctgc 240  
 ttggttgctg tgggtcacat ggtgccggac gacttgctgc tgagcacggg ctatctgctg 300  
 agtgctcatc ctcctcagat atgagcgatg aaagttgaag aagcgacaca gccgagcctg 360  
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 agaactatgg tgttgagggt caccgccgca aca 453

<210> 10053  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-032-Q1-E1-F10  
 <400> 10053

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 atatgtaggc tggattgaga cgcattggata tcccatcttt aactcgcacc agtcctctca 240  
 ctgctttctt ccacatgtca acagtgacaa tccaagcctc agcatcgga tagtcccact 300  
 tggagaggag gcanacataa tcgccacaga ggatcggaca agctgtttgc atgtcgctca 360  
 taggcaactt tttagctcta gaagatgggt tcaagttctt ggggtggc 407

<210> 10054  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-032-Q1-E1-F12  
 <400> 10054

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 cctgtgcatt cgggtttttt ggtttgattc ggtttgggtc atacggtttt tggtttatac 180  
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 ccgtttgctt tcggtttggc ttccgtaata accatattaa ccaaagttga cgcgaatatt 300  
 tgaatggaca cgaaacattt ttggtcacat gatttggtat ctgcatgtag ccatgtacct 360  
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 acatga 426

<210> 10055  
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 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-032-Q1-E1-G10  
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 atagaaaaat gtggttattt accacttgcc gttaaagtaa tgggaggatt attgcgtgaa 180

agaggagggc tacgtcgtga ttgggagcat gttttggatg attctaaatg gtcagtaact 240  
 aaaatgcccc cagagatcaa ctatacagta tacttaagct atgaatatat gccttcatat 300  
 ttgaagcagt gctttctata ctacactctt cttcctaaaa gtaaacctta taatatggat 360  
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<210> 10056  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-H10

<400> 10056

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 tggaaaatcc ccattggctg ggggttgtaa cgggttatcg gatccaaaac ccgacccgat 180  
 agcttaacag cgttctgtta cggtggatgc cacatgtcgg tcacccttga tgaaagcact 240  
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 tgtcatggaa cacttctacg acagcacagg tatgactatc ttgattctgt cataaaatcg 360  
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<210> 10057  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-H12

<400> 10057

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 tccatggagg tgcttaaggc aaagtacaac aacttgcgtt acctggatga gtttcagagg 180  
 ctctggagaa aagaaagcaa gtggttcttg gagatgaaga ggctcaatgg tggagttcct 240

gtgaagtttg atgggtacat gcgtgagctg gttgacaggg aggtcttcct caagggcaag 300  
aagaaggctcg aggtgctcca gtgattgctt ctccaagata aatcggtgga gaacacgtca 360  
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tagatgatcc agtc 434

<210> 10058  
<211> 437  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-032-Q1-E1-H9  
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gatggtaggt ttggaatcga ggtccgtttg gtattacgcc cagactacca gcatccctcc 240  
atcaactgga tacgagtatc gatagatgtt gccctagacg gtggctttag tcttagtagt 300  
gtctgaattt gtaaggctct gtgtgaatta ttaataaagt ggccacatgc atcggtcaga 360  
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<210> 10059  
<211> 448  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-044-Q1-E1-A9  
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cacaattaaa tagcaagttg accatcttta gattgtgagt cgatcaacag ctgtcttaat 180  
atcaaagagc tcattctaac acaaacgaac ccataaacca tggctttaag ctacaatccc 240  
gataaacaaa atcatcacag tgttcgcaga attcaaacat caacagagag gacagcacco 300

cacgcacgca ttggatctga agacctgttg ggtgctccca cgtgctgaag agtcgcttct 360  
 tcactccatg gtagctccag aaccgaaagt gccgccgccg cctccacggc caaatggcct 420  
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<210> 10060  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-044-Q1-E1-B10  
 <400> 10060

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 ggaggagagc cgtggcaacg aggaccgggt cacactcatc aaggaatacc gtggcaagat 180  
 cgaaactgag cttagcaaga tctgtgatgg catcctcaag ctgctcgaaa cccaccttgt 240  
 cccgtcttcc actgcccctg agtccaaggt cttttatctt aagatgaagg gtgactacta 300  
 caggatatctt gccgaattca agagtgggcc tgagaggaag gatgctgctg agaataccat 360  
 ggtggcatgc aaggctgctc aggatattgc tttggctgag ctggctccaa ctcacccgat 420  
 taggcttggg ctggcacta 439

<210> 10061  
 <211> 241  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-044-Q1-E1-B11  
 <400> 10061

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 tgtctgcact gctaacctcc cgcgtatgct ggcggcatcg gtattgatcg gcagtacgac 120  
 gtccgaagaa ttgacgtata agtcatgcgc gtaataggac aataacatat catgcctaac 180  
 atcgcgatcg acattcgtgc atgataccac atcttctgct gagtcatacg tgtcacgtcc 240  
 a 241

<210> 10062  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-044-Q1-E1-C11  
  
 <400> 10062

attcccaggt cgacatcgta agatgtatac ggacgaatgt gcctcatcat gttggcgatt 60  
 gcttcctcac tcaggctaac ttacgatacg agagacttgg ctgcaggtga gacttatgtt 120  
 ttcaacttag tcactaactg caattttctac ttcttggcat aagttttttt ccggcgatca 180  
 aactcattg cgtcttaaca ctgtaagatt ggggaaagt taaatgcgac tcttactagc 240  
 atcaagatcc aacccttgac acgggagtat aaatacctca cgtaacagtt tggccgcact 300  
 aaatgatcga tcctgtcatc cgcttgcata ctcaagttata tcacttccat attgcttcag 360  
 tegatctctt cacaggctgt cggactacac cttcatgtct gcgaaactcc 410

<210> 10063  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-044-Q1-E1-D12  
  
 <400> 10063

ttcccgaggt cgacgtccat acataactga aggacgggaa ataggatggg acagagagag 60  
 agagaggaga gagaggggga gggagagggg tagagtgttg gatgggtgat ggagttgctt 120  
 ctggaagatg gtgggagagg cctactagac aaaccgaggg tggaactgca atattatcaa 180  
 taagagtggg gatgtgtttc tgtgtgtgcc tgtgcgtgat agatctgtcg ggacacatcc 240  
 atggatgatg aaggggaacc atgtgttttg taagcaaacc taactagatc ggtagatcaa 300  
 ttgttttttt tgtcggagga acggagagac ataactaatg aggtagatcg atcgacgcgt 360  
 ggggaaaaac gagttataag gacctagcta gctatatgta tagccggaga tctgtcgggtg 420  
 tacat 425

<210> 10064  
 <211> 356  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-E9

<400> 10064

cccgaggctcg acggagacct aatggacctg gtgtgggggc tgcagtattc catctgcctg 60  
cggcgctgtc gaagaggagg actccgaggt ccgcctcgca gagcacggcg agctcatgcg 120  
ccttcttgag cagccgggcg ctgcgcttgc cgaagggtga ctgcgtggag acgtcgttcg 180  
acggtaccaa catctaagtg ggtcgctct ctggcggtcg ctcgagagga tccaggcttg 240  
ccttagcttg cagtgcattg cgtacctctg ctggagtgtc atcgtaaata acactgtcgg 300  
tccgttggtt tataacttcg tgactggcaa aatgcttccg tttgcagact tagtcg 356

<210> 10065

<211> 434

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-F10

<400> 10065

cccgaggctcg acagaaacag agcacaccga gatggcaatg acagaggctg gcaaaccagc 60  
aacatggtgc atgtctctgg ccagagtgct ttcagcagag ctattagagc tgtagtgatt 120  
cccccaact tcaggttggc gactggagtc agtaagttca ccggagagtc caagcctgac 180  
acctggctcg aagactaccg agtggctgtc cagattgggtg gcgacaatga tgaggtggcc 240  
atgaaacacc ttcctctgat gttggagtgc tcggctaggg cgtggctaaa tcagttggcg 300  
cctggcagta tctatacttg ggaagatcac gcctgagtgt ttgtcagaac gtttgagggt 360  
acttgcaagc ggctagcagg tttgacgaa ttacagtgtt gcgtccagaa accgaatgaa 420  
actttgagat atta 434

<210> 10066

<211> 408

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-G12

<400> 10066

gtcgactgga acgactaaat ctacaaaatc cacataccgg gtgtcctcaa gtatgtgctc 60



aagtaaaacc acagcaaaat ttatcaagat atatgcacct tatcttctcc acaagccaaa 120  
aaccacatcg cgcgtgttct tcttgcattg gtatgtgatg gaaaaacaag gaagactttt 180  
cacatgccgg ctagattatt atgttggaga aggacatcat tgatcgggtga taaaaacaaa 240  
acaaacaagc atgtattctt gaattatatg ttcaggtttg tgtaatttgc tcatgtcttg 300  
aatgagctg ggatgataaa atatatgtat tcatgtcatg tttgaaacaa agcagacaag 360  
agaaggctga caaaaaagaa gcggccgctc tacaggatcc aagcttac 408

<210> 10067

<211> 465

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-G9

<400> 10067

ggtacgcctg ccggtaccgg cccgtagatt cccgagtcga cttccaccaa agcgaaatcc 60  
atcatctcat cgaaagacgg gacacctccg cctctatcaa gtggtatcag atttccaggt 120  
tgctcgggtga gattttacag ttttctgtag tttagatcga gtctgttctt catacctaca 180  
gtccacgaaa aagccacaaa aaaaattagg gttagtctcat catatccgaa ccaatctgag 240  
cctttgcata atcttttttag ggttttgcct tgttgaattt gcggttgcat cgtcgtgtct 300  
agttgctggt cttagagtct agtcttttag agtttcgagt tctggtcata agttgtcacg 360  
ccgccgccgc accatcatca tcgccctgc catctaccac caccgcttat ccgccaccgc 420  
tccgaatccg tatccatata ccaccaccaa tccgtgtcca tatac 465

<210> 10068

<211> 422

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-H12

<400> 10068

tcccggtcgc actccacag aaaatgatag ccaccatctc atcgaaacat cgggaccctt 60  
gcctctatca agtggatatc gatttccagg ttgctcgggtg agattttaca gtttttcgta 120  
aattagatcg agtatgttct tcatacctac agtccatgag aaagccacaa aaaaatttag 180

ggtagttca tcataccga accaatctga gcctttgcat aatcttttta gggtttttgc 240  
 tttgttgaat ttgcggttgc atcgctgtgt caagttgctg gtcttagagt ctagtctttt 300  
 agagtttcga gttctggcca taagttgtca cgccgccgcc gcaccatcat catcgcccat 360  
 ctagcacttt tgcttatccg ccaccgctct gggatcatat ccataacca ccacaaatcc 420  
 gt 422

<210> 10069  
 <211> 422  
 <212> DNA  
 <213> *Triticum aestivum*

<223> Clone ID: LIB31-044-Q1-E1-H9

<400> 10069

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 tgtaaagcgg tgatacttc ctgcatgcaa aacaatcatg ccacctttct taactgctat 180  
 acggatccac tgttcgtttt ggtccctcac atcaaagtat ccactgccct cgagacaata 240  
 gcgtatctct tcatcagtat gcaagtgtc ttcatagaag ttcttcagct tggcctcata 300  
 ctttggaac ttctctggac atacatctca aatgtccaca taagagtatc gcctggcctc 360  
 acggattttc ttgagattct cgtcattctc ccagtcatca gcattcaggt tccagcttac 420  
 aa 422

<210> 10070  
 <211> 463  
 <212> DNA  
 <213> *Triticum aestivum*

<223> Clone ID: LIB31-045-Q1-E1-B12

<400> 10070

taccggtccg aaattcccgg gtcgaccgca ggtatgatca aggtctctgc tgggtgtcct 60  
 accttcgatg gtacggacta cccctactgg aagaacaaga tgccaatgca tcttgaagca 120  
 attgataacg atctctggta tggtgtggaa aatggtgttc cctcagtcac accttctctg 180  
 aatgctgctg atgtgaagag attcaagcaa ctcgactctc aagcgaagaa tatcatatgt 240

ggccatctga gcaaaggaca ctatggcaga gtgagtgcct tggagacagc gaagtttata 300  
 tgggacaggt tgtccaaagt gaatgaagga gtctcaactc agcgtgaatc tcgagttgat 360  
 gttcttcgca atctcttcaa ccgcttcaaa agactcgaca atgaaaatgt tcaacaaacc 420  
 ttcgatcgcc ttactgacat ctcaaagag cttcaagcac ttg 463

<210> 10071  
 <211> 465  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-B4

<400> 10071

gaattcacgg gtcgacggag aagaagcagt tgaacccgat gcgggagatc aaggtgcaga 60  
 agcttgtcct caacatctcc gtcggggaga gcggcgatcg cctcactcgc gctgccaagg 120  
 tgttggagca gctgagcggg cagtcgccag ttttctcaa gccgaggtac actgtcaggt 180  
 cttttggcat tcgtcgtaat gagaagattg cctgctatgt gacgatcagg ggtgagaagg 240  
 caatgcagct tctcgagagt gggctgaagg tgaaggagta cgagctcctg aggaggaact 300  
 tcagtgcacac tggttgcttt gggtttggtt ttcaggagca cattgatctt ggcatgaagt 360  
 atgacccatc aaccggcatc tacggcatgg acttctttgt tgttctggag cgagctggat 420  
 accgtgtctc ctgccggcgc cgatgcaaag ccgtgttggg attca 465

<210> 10072  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-B5

<400> 10072

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 ggaagagaaa taagccagac gtgatcggac tgaccgggtct cctgtatttg tcgagtgttc 120  
 ttgttggttg ctggggctct tctggcctgt acaatgggtg caccacaaca gccgttttgg 180  
 tgggtggtctg ggcaggtgct agactgtctg tttgttagcc atttgatgtg atggccctgc 240  
 gcgcctacct ggttgttgtg cttgactcgt ggtgttattg acctgtagtc tctttagttg 300

ccggtcatgt acaatagctg tttggttata ctactctgtt cctttcctag gtagctagcc 360  
 ctgactgtaa tttgcagcat gcataactgt ccgtgttctg ttccttgcat tttatccatg 420  
 taaaac 426

<210> 10073  
 <211> 495  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-045-Q1-E1-B6  
 <400> 10073

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 gaggctgaga agattgtcca gatcaagcgt gccgaggggtg aagcagaggc caagtacctg 180  
 tctggcctcg gtatcgcccg ccagcgccag gccattgtgg atggcctgag ggacagcgtc 240  
 ctgggcttct cagtcaatgt gcctggcacc actgcaaagg atgtgatgga catgggtgctg 300  
 atcaccagcgt acttcgatac tatgaaagag attggcgcggt cctccaagtc ctcggcgggtg 360  
 ttcatcccc atggccctgg tgcggtgcgc gacatcgcca cgagatccg tgacggtctt 420  
 cttcaaggcc agtctgcctc tgacaactag cagtttgctt cgccggcatg aactttggaa 480  
 ctgctgggtgg tttgt 495

<210> 10074  
 <211> 492  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-045-Q1-E1-B8  
 <400> 10074

cctgccggta caggctccgaa attcccgggt cgacatcgaa ccagatgcgc atgtcaagca 60  
 ggcgatgaat gagatcaatg cagccgcaag gatgaggggtg gctgcaaacg agaaggcgga 120  
 ggctgagaag attgtccaga tcaagcgtgc cgaggggtgaa gcagaggcca agtacctgtc 180  
 tggcctcggt atcgcccgcc agcgccaggc cattgtggat ggctgaggg acagcgctct 240  
 gggcttctca gtcaatgtgc ctggcaccac tgcaaaggac gtgatggaca tgggtgctgat 300

cacccagtagc ttgataacta tgaaagagat tggcgcgtcc tccaagtcct ctgcgggtgtt 360  
catcccccat ggccctgggtg cgggtgcgcga catcgccacg cagatccgtg acggtcttct 420  
tcaaggccag tctgcctctg acaactagta gttggcttcg ccggcatgaa cttttaagct 480  
ggtggtggtt tg 492

<210> 10075  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-045-Q1-E1-B9  
<400> 10075

tgacgggtccg agattcacgg gtcgacatac ttcgcgaatg gcagcagtat tcacatctag 60  
cagcatggca gcagaccagt tttttttctt ttcttgcagtg tgtttttctt ttctttttta 120  
ttttcttttag tatggatcta tctctctgat caagcaagaa gagatcggca gctccagcga 180  
catgacgagc cgtttccggg tttttatgaa gggaactatt tggggtcgcg cggaagcaaa 240  
actagctagg gtttattagt gctgctctag ttccgcttgc tattcctttc gcttggtcgt 300  
ttgtttcttt aaggatttta ttatcaaggt tgtaaggctg gggatgtgca gctagcttca 360  
gattcaagcc tgccgtctcg cctgcttgta cattgtaaaa cagaaccgct gctctccagt 420  
gactgaatga ttataagcag ctact 445

<210> 10076  
<211> 456  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-045-Q1-E1-C10  
<400> 10076

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catctgtcgc aacttcgata tggcacgtgt ttactccagc caatgatgat ttacacgtg 120  
ggaaatcccc attgggtcggg gctgttactg gggtattgga tccaatatcg gacccgatag 180  
cttaacagcg ttctgttaca gtggatgccg cgtgtcgggc acccttgacg aaagcacttc 240  
tatgacgcgg gaattatact catggaagtg gccacttccg tgatgataat ttttgtaatg 300

tgatggaaca cttctacgac agcacaagta tgaccatctt gattctgtca taaaatcatc 360  
atggatgtac atgcatgaca gaaaacgtga cctactgtga aaaacacgta tcatcacgga 420  
agtgtatttt tttatagtgg aaacgtgtgc aatggc 456

<210> 10077  
<211> 457  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-045-Q1-E1-C11  
<400> 10077

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aacaatgtct ggctcgatga ctagttaagt ctacctatg atacaagtaa tattattaca 120  
acgggttact acaatgggcc ttaagtcgcc tgcagtcctt aagctctcta tgaaccgcca 180  
tcttcatact ttgtcttggg attctctctg gtgagtcctc tttgggtaac ccggcccctc 240  
ctgggcggct tacacaaata gttatatccc caacagttgg ggtggttcta catcaccgag 300  
ccacgcgatc ccaaattggc ggcgcccccc gaattccgat ctggctttcc cacacggctc 360  
acctcctgga aagagacagg cctaacatgg ggggattcag aagagctgac cggacttcaa 420  
acctgcgtcc aaaagctggt gaacaagaac ctcaagc 457

<210> 10078  
<211> 482  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-045-Q1-E1-C2  
<400> 10078

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acacctctgc ctctatcaag tggatcaga tttccagggt gctcggtgag attttacagt 120  
ttttcgctgt ttagatcgag tctgttcttc atacctacag tccacgaaaa agccacaaaa 180  
aaaaaatcag ggtagttta tcatatccga accaatctga gcctttgcat aatcttttta 240  
gggttttgct ttgttgaatt tgcggttgca tcgtcggctt agttgctggt tttagagtct 300  
agtcttttag agtttcgagt tctggtcata agttgtcacg ccgccgcgcg accatcatca 360

tcgccccctgc catctaccac caccgtttat cgcgccaccgc ttcgaatccg tatccatata 420  
ccaccacagc tgtcatatac caccaccgct gccatctacc accatatatc caccaccaat 480  
cc 482

<210> 10079  
<211> 497  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-045-Q1-E1-C6  
  
<400> 10079

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gctgactcac tggatacggg aaatccgcaa ctccccatcc cacagaaatg gcagtagccc 180  
aaaagcagcg ccgttcatac gtaacaccga ttgtgttttg caggttgaga ttgtgatggg 240  
cctcgaggaa gagttcaaca tcaccgtcga tgaacaagc gcgcaggaca ttgcaaccgt 300  
gcaggatgca gcggacctta tcgagaagct tgtgacagag aagacagcgt aagcacctcg 360  
gttcattgga cagctttaga aggcaaagg gtcattctgga accgtggact tctgattttt 420  
cggtcgcatt tggggcgaga gaaaataatt tatggacagc tttgcattca gtctatgttg 480  
tgtgttcatt accattt 497

<210> 10080  
<211> 364  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-045-Q1-E1-C7  
  
<400> 10080

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agtagagtgt cctgcatgcc attgcgggtg cagctcagac gtgtctctgc gttgtcgatg 120  
ctaacactat gtgtggatgg cgtcgccaga tcacgcctgg attcatgtta gttggacatg 180  
aattacattc tgttttccgc atcaactaat agctgtaagg gagttgctaa tcaagtacgc 240  
ctctttggat atggcatgag cagagtcgat gaaacaagcg cgcaggacat tgcaaccgtg 300

caggggtgcaa cggaccttat cgagaagctt gtgacaaaac acgacagcgt aagcacctcc 360  
gttc 364

<210> 10081  
<211> 453  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-045-Q1-E1-C9

<400> 10081

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tggtccctcg ttgctcccct cctgttccca gacagggagt tctagatcga cctgggttacc 180  
tgctaagagt gcatcatccg tttggagcac ctacttatcg tatcgaacgt gtttcggctg 240  
tgatgatagc taagctgact atctgtatct ggtctgtaat attgtgtgag caaaccatg 300  
gcaaggagct ggtgtttgtg tgacgttgtt gagtctggtt tgcataatgt gtgacctaa 360  
gcattgttgc cagtatttca acagtgaaga tacgctcttt ggttgatatat aaaaaaant 420  
aagtgtnagg aaaacagaaa aagcggccgc tct 453

<210> 10082  
<211> 432  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-D1

<400> 10082

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gcctaagttc acctcgtcgg ccggccggat cggaggaaga gcaagaagtg gtttgaccgt 180  
gattcattct ttatagtttg cattttgcag gagaagcatc cacattttct ctctcgcca 240  
taagaattta gtaaattctc atgtcttgtt aagtttccga tacatgtttg cgccaccccg 300  
tctgtagatc ttacttataa tcaaattctc gggcccctgt gctgcctgag gaggtttttc 360



cgttgtatcc catgaacgaa ctttgaacc tgttttgctg aaatcattac agaatccaat 420  
gtgtttttta ca 432

<210> 10083  
<211> 491  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-D5

<400> 10083

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ggaggctgag aagattgtcc agatcaagcg tgccgagggg gaagcagagg ccaagtacct 180  
gtctggcctg ggtatcgccc gccagcgcca ggccattgtg gatggcctga gggacagcgt 240  
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gatcaccag tactttgaca ctatgaaaga ggttggcgcg tcctccaagt cctcggcggt 360  
gttcatcccc catggccctg gcgcggtgcg cgacatcgcc acgcagatcc gcgacggtct 420  
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agctggtggt g 491

<210> 10084  
<211> 483  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-D6

<400> 10084

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ggctgagaag attgtccaga tcaagcgtgc cgagggtgaa gcagaggcca agtacctgtc 180  
tggcctgggt atcgcccgcc agcgccaggc cattgtggat ggctgaggg acagcgtcct 240  
gggcttctca gtcaatgtgc ctggcaccac tgcaaaggac gtgatggaca tgggtgctgat 300  
caccagtac tttgacacta tgaaagaggt tggcgcgctc tocaagtcct cggcggtgtt 360

catccccat gccctggcg cggcgcgca catcgccacg cagatccgcg acggtcttct 420  
tcaaggccag tctgcctctg agaactaagc actttgcttc gccggcatga actttgaagc 480  
tgg 483

<210> 10085  
<211> 462  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-045-Q1-E1-D9  
<400> 10085

taccgggtccg agattcacgg gtcgacgtcg acacggaggt gaccgcgggc gcgcagccga 60  
agaagaggac gttccgcaag ttcagctatc gcggcgtgga tctcgatgcc ctctcgaca 120  
tgtccaccga cgaccttgtc cagatgttcc ccgctcgcgc ccgcagaagg ttcaagaggg 180  
gtctcaagag gaagcccatg gcgctcgtca agaagctgcg caaggcgaaa aaggacgctc 240  
ctgctggtga gaagcctgag ccagtgagga cacatctccg taacatgac attgtccctg 300  
agatgattgg cagccttata ggtgtctaca atggcaagac cttcaaccag gttgagatta 360  
agcctgagat gattggccat taccttgtag agttctctat ctctacaag ccagtgaagc 420  
acggtaggcc cggatcgggt gccacacact cctcccggtt ca 462

<210> 10086  
<211> 398  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-045-Q1-E1-E1  
<400> 10086

taccgggtccg aaattcacgg gtcgactcat gacgtcttag tgttccctgc agtcttaaca 60  
gttcgattat acttcatcca acatacaaca tcactactca tcatacctca tcatgccatt 120  
tcggttaciaa tcgtctctat gagtaactag ggacaatctc aggtctaccc actacagaga 180  
ctttcctggc ttcttttcag catatgatat aaccattctt atgatattac cagcttcagc 240  
attatcaatt gctatggaat ctctactatg cattcatata tctgattata tcaccacttt 300  
tcgataaciaa gttctacata ttgatgtggt gttataatcg tgtaaacact gcatgatgta 360

tattaatcca gtgttcacaa tgcttgctc caagagca

398

<210> 10087

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-E3

<400> 10087

ttcacgggtc gacttgagga cactgtctgc tcggggaacg cctctccac gtggcaggcc 60  
attcagtacg gcctcgagct cctcgagaag gggattctat ggcgcgctcg cgatggcccg 120  
aatatacgca tatggcgtga ccgttggtc ccaacgaaac cgacggggta gccgatcacg 180  
cggcacggga cttgccgtct tcggcgggtc tcagagctcc tggacgagtc cgacgcctgg 240  
cgtacgaacg tgctgcgaca gtattttctc ccggcggatg tcgcgaccat caccagcatt 300  
cgcacgtcac cccgcatac cgacgagtc atcgcatggg ccccgaaaga gaacggcatc 360  
ttcacggtc gctctgcata tcgccttgcc atggacgagc gccagcgtcc attg 414

<210> 10088

<211> 482

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-E5

<400> 10088

ctgccgttac cagtccgaaa attcccgggt cgacgctggg gaagtaatcg tcggagtccg 60  
tgatggaaaa gtcagtagtc gcgcggagcc ctccccaaaa accttatcac cctcctcctg 120  
tacagcagca actcagagat tggaaccggt ggcgagagga agaagaagtt ctggtgcacc 180  
tctctgagag gagaggctc ctttttatag gcgcaagagc agcgacggag ataaaaattt 240  
agacattagc tcggctcatt ccctcccttt tataggcgcg ggcggcgaag gaggagcgcg 300  
cgtggatgtc cctcttggtc tcatgctcat acaagtgagg aaagaacctc cttataaag 360  
aggtcaaact ccctctaaac tagcaatgtg ggactaaact ttagttccag ctctttcctt 420  
gcacgaatgg cctgcgtggg cctccaagat ttattacgaa atttccgaaa ctgcttattg 480  
gg 482

<210> 10089  
<211> 487  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-045-Q1-E1-E7

<400> 10089

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atgaaagtcg atacttcagc atttgaaatt ttggagagta catagtagca tgacaaagag 120  
taaccgtaca tcatggctgg gttgaaacgt cagaactgga aatccacaag gatttagttc 180  
ggaacaaggg ccatgactag ttttgacgac ataaagctta acctctcagc catgtgttcc 240  
tgtacgacga gttgtctcgc agcgaggcgt catgtggctt gtactccatc agatacgtgt 300  
gcggcagctt caagtgcctc ttaatcgagt ctcttaatgt catcacagcc tgatgggtctg 360  
atgcattccg attccagacg cccaggatgt cttcattgaa acgacaactt agcacgatgc 420  
cacagacatc atcactataa tcaagttgat caccacagag aaccagcacc aaatcctccc 480  
agaaacg 487

<210> 10090  
<211> 375  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-E8

<400> 10090

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ggagatcgac gacggcgagg tggagatccc cgcttaagaa ggcttggctt tgggcagggt 120  
gttatgtgag gctgctgaag tagtttctcc tatctagatg cttcctgatg cagttgagag 180  
aatggatgtg atatcttcac ttgttctact cgtgctgaag aagaaacttt tgtcatgctt 240  
tagtggttcc attgtgagac tattttttac tggtttaatg agtaccttgc ggaatcaatc 300  
aatgttatta tggcagctag aatatcaggc gctactgggg gtagcgcgaa gaaaaagcgg 360  
ccgctctaaa ggatc 375

<210> 10091  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-E9

<400> 10091

cgggccgaaa ttaccgggtc cacatgcatg catggaacca acggactagc tatagggggg 60  
 tggagcagga gccacggatg gagtagccac gatggagcac ccgaaaaatt gtcgggtccc 120  
 accgctctcc ttgtccagcg ttcgcctact acctgcagct gctatagcta catttgggca 180  
 gtatgcatgc cgttctttta cttcttttgg agaaaacaga aggggtactgg tttgcctaata 240  
 gctaagtcca caagtctaac ttccaaagtg gtgcaatttc agtttagtgg aaaggaagac 300  
 tcaaattgtg attttttagaa ttggtttatt agataataga aaaaagaatc tcaattacca 360  
 tagatataaa ttgacacctt ttccccatta agaggtgtat tttgttgact cgtaatgtcg 420  
 catcaagaaa acacaagcac catg 444

<210> 10092  
 <211> 372  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-F1

<400> 10092

tccggaaatt cagggctcgac ggtcttttaa cactcgggtg cattctgcga gggagtggac 60  
 aagtagtgaa cggtgacaag ggagttgtgt acaccacaa ggatcttctt ttgcaatgag 120  
 ggtagaggat tcctgctgta gagcaatttt tgtagaataa tcctcttcaa agcccccttc 180  
 tctccgtgag aggaatgaag aaagacaaga gagcattgtt gttactatgt cgctatctag 240  
 ttccgtgatt attcgtgtac aatgatttat ccatacaatg tcgtagttat ggcactagct 300  
 gttgtaactg tagaattgca tcggtacatc tatgccacat atatgaagta cctgtacggt 360  
 ttctgatgaa ag 372

<210> 10093  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-F11

<400> 10093

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gacgggacac ctttgccctct atcaagtggg atcagatttc caggttgctc ggtgagattt 120  
tacagttttt cgtagtttag atcgagtctg ttcttcatac ctacagtcca cgaaaaagcc 180  
acaaaaaaaa attaggggta gttcatcata tccgaaccaa tctgagcctt tgcataatct 240  
tttttaggggtt ttgctttggt gaatttgctg ttgcatcgct gtgtctagtt gctgggtctta 300  
gagtctagtc ttttagagtt tcgagttctg gtcataagtt gtcacgccgc cgccgcgcca 360  
tcatcatcgc ccttgccatc caccactacc gtcggaatc cgtatccata taccagcacc 420  
gattcatatc catatacgac cac 443

<210> 10094

<211> 319

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-F4

<400> 10094

tccgaaattc acgggtcgac cgggacacgt tctgcagtgc gacgtagctg ccactctggt 60  
ggctaacgcc cgtagttact gcagtctcca tcctctatcg atggacatga tcgtcgatcc 120  
accacgaagc aattggaaat cgatgtgtgg tctaagtgtg ttaacagtag agtatccacc 180  
tcggtcctgt ggtagatccc tgtcgcagat ttagcgaata acgacatact gagcaaatg 240  
agtgaatcta cactccgggc gtatcgtcta cgatacatcc gtacgtagtc gtccatttga 300  
catctctaca ctgcttaaa 319

<210> 10095

<211> 458

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-F7

<400> 10095

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cgcgctgctc agccatccgg catccggcaa gacggcaata cagtatgtag ccatccatgt 120  
atcatattcc tgttccatcc ccgattccat ccaaagctaa acttcagcag tttctttgat 180  
tcttttagtac gtattcaact attcatccct gatccatcct aattttctgt catgttgtgt 240  
acttcctcta tttcaaattt agactagaac catgacgagt aatttggaac ggagggagta 300  
catatctagg tttcaatcat ctgatgtata gatttctaata tctttgtatt cgaatttctt 360  
cattagttta ggacattagc ctgtcagttt atccaagaca aagcatttac caggtgcata 420  
aaagctcggg acggagaaaa aaaggggggg cgctcggg 458

<210> 10096  
<211> 454  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-045-Q1-E1-F9  
<400> 10096

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gatggtgagg ttagggtttc tcttaatgtg gcgagatttg gtgtcagatg attaagatct 120  
acgcaagggt tcaacggcga gaactgcggc tccagggcgt cggtccttag gggcacgtgg 180  
acgaagactt cccgactatc atccacaagg tcaagctagc tccaatagga gagcggcaat 240  
agcagcgcgt cgatggcttg ttctgacggt agtcagtggc ggagccaacc agctcaagga 300  
gtcggacaaa ctctttgcac cctgacgtgg tcagcatttg tccaaggaat taacaatact 360  
aatcatggtt gctttgtact agttagtgaa gaatggcaga agcagcccgg gcagctgccc 420  
cgggtcgcca ggagctaact ccgccactgg cggt 454

<210> 10097  
<211> 467  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-045-Q1-E1-G12  
<400> 10097

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gtgcatgacc ttacttgaac tttctcaaaa taatataatt tactttttcg tgaccactaa 120  
 ttttaacttct ttttaagcaat tattatgagt agaaaaggca agggcggtact gaaaaaacac 180  
 tgcaaattca aaaaatgtcc atcgcatatt taaaaaata ttcttcacat atttaaaata 240  
 cccatcatgt tttttataat attcatgtat gcaggaaaat tatattcata tgttgaaaaa 300  
 aactatgtaa ctttcaggta agtcaaagga aaaaagtaaa tgtaaaaatt tggatttaaa 360  
 atgagtaaaa gtataaaaac ggaatataac attgaaggaa aaagacagaa aaccgaagca 420  
 aacataagga aaattgcaaa aacaaaaacg accatctggc gcaatga 467

<210> 10098  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-045-Q1-E1-G4  
 <400> 10098

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 tggatgaacga gaggatatgt attcggcggtg tcctgaagag gtagtccacg aaccggcaat 120  
 ggaggaaata aggtagatac ggcaatagca gcaagtacgt caagcgctag ggatgtggat 180  
 atgggtgtggc ataaagaggt tgatgttctt gctcagtata agccaataat ggagaaactg 240  
 atcaagctat ctttcatgat cagttacaca ccaagcctat atttatgcta cttctacatg 300  
 ttgctgtgat ggtcattcgg ccatttttct tgaacctgca ctacgatgag agatctgggc 360  
 tgcttctttg tggcttccaa acttaaaatg tttgtttgaa agttagttaa gttttttgtt 420  
 gtggactcac atcttctcac atgta 445

<210> 10099  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-045-Q1-E1-G5  
 <400> 10099

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 cggcaaagaa acaagagcca tccatgattt gcatgggtccg gttgcctaata taggatgttt 120



gtatggcagc taagacagaa gtgggggtttt ggcgcggttg gttagcgcggt atgtaaactt 180  
 acaaaatcag acaatcatta tgaagaaacg ctcaatgacc acttggatcg ccacatatac 240  
 aactgaatca tctgactagg ctagtacaat gtatgcgtct aaatctgtgg gaacgcataa 300  
 gttgcatgtc tgagtgggtcc catcatttct aagttttcta tgcgacgcca ggctctataa 360  
 cagaaaaaaa aaatatcaat tgtgtgctag cttaacagtt ttttataaag ggaatatact 420  
 aatatcaaac ggatatcaa 439

<210> 10100  
 <211> 370  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-045-Q1-E1-G7  
 <400> 10100

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 gacaagaagc ttgatgaaca agaagcattg catctagagg caactgtcgt gtgccatcaa 180  
 gatatcaacg tcgatgcaat ttttaatggc aattcttggt gagcgatgat tattatactc 240  
 cttcagactt agccttgccc gttatgtacc aaagctgatg caattttcac tagcgaggct 300  
 tgttgatcct gtgatgggtat ttataacttg atatgaatgt cctccttttg ttatgtctgg 360  
 gatgtttcac 370

<210> 10101  
 <211> 484  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-045-Q1-E1-G8  
 <400> 10101

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 tgatcgatct caggatagtc ctgctcccca ggaaagagtg cgcagagaaa cttctgacgg 120  
 gtatgaagga actgcagtga tggaaatttc tgatgacgag gaagaaactg cagcgggtgca 180  
 aatcacacaa ccttctgaaa gtgagaacag tcaagcgact tgtgtgcagg aagttgatcg 240

caatcaggat agtcctgctc gccaggaaag agggggcaga taaccttggg acggtgatgg 300  
 aggaactgcg acggtgcaag ctagcgatgg cgacaaggaa actgcagctg cttaaagaaa 360  
 ctgatggact gaatgattct tctgtccagg ttagattacc tgatcggata gatgggacat 420  
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 tttt 484

<210> 10102  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-G9

<400> 10102

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 ttctaaaata aatcgaaaag caacgcgagc acccgactt aaaaccctca tgggctggga 120  
 tattattgtc tttctaata tccaatcaga aggttggttc gctgggctgg cctattttga 180  
 tatacatgcc atggagtggg gtggcgccaa gtaacaagct tgcgtgtgta ctatggtaaa 240  
 aagaagtaac aagaatgcc atcagtggcg tataaggcgc caaataggat ttgaggccgc 300  
 agcgttcgtt acatgtgaca caaatcacct cttctattca gcgtcatacg cgctggataa 360  
 gatgcaaacy tgcacagcca acttccttca gcacgtgctt tgggcccggc catgtgctgg 420  
 gccgtctggg cctgtttttc tcctttttgt ttttgaactg 460

<210> 10103  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-H5

<400> 10103

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 tcgcctctat caagtggat cagattaaaa ggttgctcgg tgagatttta cagtttttcg 120  
 tagattagat cgagtctgtt cttcatacct acagtccacg aaaaagccac aaaaattttt 180  
 tagggtagt tcatcatatc cgaaccaatc tgagcctttg cataatcttt ttagggtttt 240

tgctttgttg aatttgcggt tgcacgctcg tgtcaagttg ctggtcttag agtcgagtct 300  
 tttagagttt cgagttctgg tcataggttg tcacgcccgc gccgcaccat catcatcgcc 360  
 ttgccatcta ccaccattgc t 381

<210> 10104  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-A5

<400> 10104

cggttcgacc caaacaccgg accatccaag gttgcagctc cggacggccc acgtcgcgta 60  
 cgatctcgcg cgttgttctc gtgtaactaa aaatagtcac acctcgcccc tcgcccagct 120  
 cctttacttg cttaaatacc ttcacgagg tgatttttagc aagcggttgg cctcattgta 180  
 ggatgaatat gattcttcac ctttactatg gttgtcatgc atattcataa tcatcatgca 240  
 tattcttcat ttagagatca ttaatgactg acgtatTTTT taaataagcg gggcccagta 300  
 ggggtgtgctt ggaaatattt gagaaaccac catgcacgtt catctttgct gcatgcaaat 360  
 cgggcgggag ccgcagtgcc agcagctgtc aacgccttaa tgaatccacc 410

<210> 10105  
 <211> 468  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-B10

<400> 10105

cctgccggtta ccggtccgaa attcccgggt cgactagtta ctccaaagac tttctagcca 60  
 ctgcaacaca ccagatttgt tgtactctat ggagagcacg acctactaga agagcaatga 120  
 gccgggtttt accatgttta ttttttctt tttactttat ttttggtttt ttctttttct 180  
 tcacttttgc agtctaattc aacatgcttc ttctgtgtct ttttttactc ggttttctca 240  
 tgcttttccc aaaataattt cggttaacaa acgcagaaaa tgttgaataa gcattaaaaa 300  
 tgggtgaacga gtattgaaaa tttgttgaat aagtacgaaa aatgttgaac aagtatttta 360  
 aattttttga ataagtattt gaaaatggtg tacaagtatt aaaaatgtgg aacaagtatt 420

ttaaaaaatg tttaataggt attaaaagtt tttgaacgag tgtttaat

468

<210> 10106

<211> 373

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-B12

<400> 10106

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ctccatgcag actgcttcaa tgatgatttt gttggagtac cttttccaga taccgatatg 120

gatttgagat atatacctag aaaggacca aagtggcagt cacgacatga caatgatcat 180

gaatctgaga gtgcttccag agcattccag tcttgctgag cttgactcag atacaacata 240

tatagtttaa cttagtgatg catatagagc agaatgtgat gctatgcatt atgctatctg 300

aaacattcaa gaggtcagtc aagcctatgc caattgagct caattcatcg ttaatcgtga 360

cttaatgttc etc 373

<210> 10107

<211> 360

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-B6

<400> 10107

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aggctaaggt gaccctcaag caccagagct ggattgtata aaatttcttc tggaagtagg 120

taaagatatc aaattttcac ggatgggtacg cggacactgc tagcttgtca tatataaata 180

catatcctgt atctatggta attcttataa gctgcaagtt aagcgtttcc actggtgttg 240

tttgctaatt ctttttcctt aaatcttttt tcatctcttg tgtagagttg gacttctaca 300

ttttttttgc aatttttcca cttggcccag agacattgta ttatttttat tagttttgtg 360

<210> 10108

<211> 466

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-B9

<400> 10108

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agaatcttga ggtcaagaat agatgtcttc tcaacaagtg gttgtgaaag ttatcggtag 120  
agactgatgc cacttgggcg cagatccttc gtagcaagta tcttcattcc aaaactttgt 180  
cccaggtgag agcaaggctg tctgactcgc ccttttggaa agggcttatg aaagtcaaag 240  
taaccttgtt taataggaca aggtttctta ttggcaacgg agctagcacg cgattttggg 300  
aggatacttg gtcgggagag accccccttg cgattcaata cccgtcgcta tatcgattg 360  
ttcaacggcg tgaggttttc gttgcaacgg tacttcaatc cactccactt aatatgcagt 420  
ttagaacggc gctaattggc aaccgttggg aagcatggct ccatct 466

<210> 10109

<211> 473

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-C11

<400> 10109

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gtgttattaa ggtcagaata caaaataccg cgctcctcct aaaatacttg ttcaaattct 120  
acaatcgtga agatgtacc' tgggttcagc tgatctggga aacgcactac ccgaacaagg 180  
tgccgcacac cgccgagcca gtgggttcct tctggtggaag agatgtaatg cagctcagt 240  
gaatcttctg tgggatcacc aggggtggctc ccggagatgg ttgcacctca cttttctgga 300  
aggatgtctg gtttggagac ccagcctcca cattaatgga tacgcatccg cgggcattct 360  
catatgctct gaatgaggat gattcgggtg ccaagatcct caaatccact gatcctgcct 420  
cgatcttcag tctgcctctt tcgatccagg ccagggaaga catcagcgag ata 473

<210> 10110

<211> 446

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-C12

<400> 10110

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cacccttgat ggaccaaacg gagttcttcg gcaccttgag cacttgatag agaccaaggg 120

gtttgctctc atgtgtgttg ccgaagggtg tgggcaggaa tatttgcaga agtcaaacgc 180

aactgatgct tcagggaaaca tggttctcag tgatatcggg gtgcaccttc aacagaagat 240

caagtctcat ttcagagaga taaacgtcca ctctgatgtg aagtacatcg accctacata 300

catgctccgc gccgtgcgtg ccaatgcacg tgatgccatc ctgtgcacgg tgctcgggtca 360

gaatgctgtt catgggcgct ttgcagggtt cagcggcatc acagccggaa tatgcaacac 420

acataacgtg ttcttgccaa tacctg 446

<210> 10111

<211> 422

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-C4

<400> 10111

ttccagggtc cacgttgaca cggaagtggc cgcgggcgcg cagccgaaga agaggacgtt 60

ccgcaagttc agctaccgtg gcgtggatct cgatgccctc ctcgacatgt ccaactgacga 120

ccttgctcag atgttccccg ctgcgcgccg cagaagggtc aagaggggtc tcaagaggaa 180

gcccattggc ctcgtcaaga agctgcgtaa ggcgaaaaag gatgctcctg ctggtgagaa 240

gcctgagcca gtgaggacac atctccgcaa catgatcatt gtccctgaga tgattggcag 300

ccttatcggg gtctacaatg gcaagacctt caaccagggt gagattaagc ctgagatgat 360

tggccattac cttgcagagt tctctatctc ctacaagcca gtgaagcacg gtaggcccgg 420

ta 422

<210> 10112

<211> 469

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-C6

<400> 10112

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 ttgaaccagc caacgagtag atccagagct gtgacattgt tgccttcaac aaaatctaaa 120  
 tcttcctgag gcaggtgatg gcggtgggtg gacaatgcag cagcacaata tatctacagt 180  
 tttccgttgc cgtgatggtg tcgtagctaa agcaagcata acatatctgc cctgtgaggt 240  
 ttttggacct taggtcgagt tgagtcgtag tgttattact gagtggtatt tgcttcgtat 300  
 gaaatgagac aatgtgggtg gattcctgtt gctattctct ttctctgccg tcttcacgc 360  
 agctacctac ttgtgtgtgc tcgcctactt tctcccttaa cagatgcatg gacgctggag 420  
 ctgttttgtc gtttgaatta caagcatggc gcctgtgccg cgttctcca 469

<210> 10113  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-C7

<400> 10113

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 gaatggctat ggaaatgcc aataggttag gtatgggtggc tgtttaggta tatgggtgggt 180  
 gtatgatacc ggcgaaaggt gcacgggtatt agagaggcta gcaaaggtgg aagggtgaga 240  
 gtgcgtataa tccatggact caacattagt cataaagaac tcatatactt attgcaaaaa 300  
 tctacaagtt atcaaagcaa agtattacgc gcatgctcct aggggggataa attggttagga 360  
 aaagaccatc gctcgtcccc ggccgccact cataaggaag acaatcagaa aatacatcat 420  
 gctccgactt ca 432

<210> 10114  
 <211> 462  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-C9

<400> 10114

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ccgctttcaa ctttcatttc aagagaaata aacgattcaa tgataaaata ataatactag 120  
tctattatgg ttcgagagga ggtagcagga tccactcaaa cactacagtg gaagtgtgtt 180  
gaatcaagag tagatagtaa gcgcctttat tatggtcgtt tcattctgtc cccgcttaga 240  
aaaggccaag cggacaccgt cggatttgcc ttgcgaagag ctttacttgg agaaatagaa 300  
ggaacatgta tcacacgtgc aaaatttggg agcgtgccgc acgaatattc tacaatagca 360  
ggatttgaag aatccgtaca agaaatttta ctaaatttga aagaaattgt attgagaagt 420  
aatctctatg gagttagaga cgcattccatt tgcgtcaaac gt 462

<210> 10115

<211> 415

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-D1

<400> 10115

cgcctgtcgg taccgtcct aaattccagg gtccacataa caaccaaag atctcaatat 60  
cttccatgct acacacacta taggcgggtc ccaaacagaa tggtaaagtt tgtactccca 120  
ccactaacia acatcaatcc atggcttgtt tgaaacaacg ggtgtcgtcc aactaacaac 180  
aatcctgggg gagttttgtt tgcaattatt ttgatttgat ttgagcatgg gattgggcat 240  
cccggttacc ggccatttcc tcatgagtga tgagcggagt ccaactcatg tgagaataac 300  
ccacctagaa tggaagatat agacaaccct aattgacaca tgagctattt gagcatacaa 360  
aacagaattt catttgaagg tttagagttt ggcacatata acatatactt ggaac 415

<210> 10116

<211> 463

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-D11

<400> 10116

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ctgagaaata gtcatgccga attaaaaaat gttccaaaac aaataatgga tatcattata 120  
catgaacggg ataaaaggga actgggtgcc tttgggtgcaa atgcacacca tgcaagattg 180



gctacattat ttttcaatat ttccctaacc gaatttccaa tagtttatgc atgaagtttt 240  
catgtaccgt ggtgcttggg aatacatcat tctaagcaca tgatgttcat gcgcacatat 300  
atgtatgtca aaatccattt aaatttcaca gctgtattgt tctatgatct gtccaaatgg 360  
atttaaaaga taaggaatat tacaagtaga tatatatgca taacttcaga aactgaagac 420  
atctttattg ccttaattag cttactggcc gatggaaaat tgt 463

<210> 10117  
<211> 438  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-D3

<400> 10117

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ttgtcgtcaa gggcactgct aagctcctgc ctggcatggt ggactactca aggcttggtg 120  
atgtgaatgc tcaggatcct tccagtgggc ctatcaattc agtgcagttt cataggaatg 180  
gtcagttgat gcttggtgca ggcttgga agcatctgag gtttttccag attgacggca 240  
agagaaaccc caagatccag agcatatttg tcgaggactg tccaattcag aaggcggcct 300  
ttctacctga tggctctgag gtgacccctt ccggcaggag gaagttcttc tactcatttg 360  
atctggtgaa agctgctggt agtaagattg gacccttgac tgggcgtgag gagaaaagcc 420  
tggagagctt tgagatat 438

<210> 10118  
<211> 435  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-D5

<400> 10118

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aacatgaaac aaatacaaga tgctctgtca gctcctcttg gagcttctgc tgattttgac 120  
gaggatgaac tggaagcgga gctggaagag ttggaggag cagagttgga atcccaacta 180  
ctggagcctg ttgtaactat tcctattcat acgacgcccg tcccaggcaa ggcgcaacca 240

actcgccctg ctccacagaa agcatcggct gaggaggatg agcttgctgc actgcaagct 300  
gaaatggcat tgtgatcagg cccccagtga atgaagaggt gaaatgtaca aatgattggc 360  
tggacggtac gctgtcgcag gcgagtcctg gctacacata tatttgcccg tgtgtataat 420  
ctttggtggg agaca 435

<210> 10119

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-D6

<400> 10119

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tttgcgagtt gaggggtggac ttgcaattga gactaaaaaa agatcagttg cgagtcgagg 120  
atgaacttgc aaccggaaca aaaaaatggt gggcatgaac ttaaaattgg gacaaaaaag 180  
tttcgagccc caattacatg gacttgcaac tgagacaaaa aatgtcaaag tccagttgcg 240  
ggtcgaggtt ggggttgcaa ctatgacaaa agaaaatcga cccccgttgc aagttgaggt 300  
tagagttgca acttggacaa aaaattacag accttttcat gaaaatttta aaaagaaaag 360  
gtgaaaaggt gaaaaaata taaaaatcat gaatttaaaa aaaagaattt gaacaaaaaa 420  
gaacgagaga agcag 435

<210> 10120

<211> 468

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-D9

<400> 10120

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aagtactact gcaccgtcat tgatgccctt ggtcaccgtg acttcatcaa gaacatgatt 120  
actggtacct cccaggctga ctgtgctgtg ctcatcattg actccaccac tgggtggtttt 180  
gaggctggta tctccaagga tggccagacc cgtgagcacg ccttccttgc ttccaccctt 240  
ggagtgaagc agatgatctg ctgctgcaac aagatggacg ccaccactcc caagtactca 300

aaggcccgtt atgaggaaat tgtcaaggaa gtctcttcgt acctgaagaa tgtcggctac 360  
 accctgacaa gggtcccttc gttcccatct ctgggtttga gggtgacaac atgattgaga 420  
 ggtccaccaa ccttgactgg tacaaaggcc ctactcttct tgaggctc 468

<210> 10121  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-046-Q1-E1-E10  
 <400> 10121

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 cgatgtcgag aacaaaatgc ttaattatga aacaaaatta ataaacactt agcaaaatth 120  
 ggcatgacct ttgctaaaaa caggacatat agagcgcttg aaattttcca gaacgtaaac 180  
 gaattgacat ttctggcaaa acatacgcca ctcggaaaaa tatgacatgt ccaaaatgtg 240  
 acatgttcaa aatatgcatg acatgtacac ttcaaatttg cgtattaaca ggaaaaatth 300  
 ctttaactaa aaaaataaca acaattgctt taactaaaaa aacacctaga attttgthaa 360  
 ctacacctaa aacaactaaa acacctaataa ttctgttaac tacacctaaa acacagcaat 420  
 ggacacacga aaagaaacgg gcgctctaga gga 453

<210> 10122  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-046-Q1-E1-E3  
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 tcgggacgag atttcttgta gtggaggaga attgtgacgc ccgggtaatt aagctacagt 180  
 aatccaacga taatcatgcc acgtcacccc gggtactatt gataatctac cgttagtcca 240  
 aaaccgagtc aaattcaaac attaaaataa agttaaatta taaaagttht caaaatatta 300  
 aactaaaatg ttcgggctat gccaaaaatg gcatacgtaa ttatagtgca gcaaacatat 360

ttttttgaat gtctaaatga ttgaaaatga aatagaacag aacataaaat agat 414

<210> 10123

<211> 362

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-F1

<400> 10123

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agcgtgtgag gatggagatg gcacgttgtc acctatactt gtagcacgtc tcattttctt 120  
tcttacctcg ggtgctaaat acagagaatc cgtttatatg tgccacgcat ggcctcatga 180  
ttcccctgat ttattcagta ccttgagggt cgggagttgc atcttgcaag tcaagtgaga 240  
tgtaaatgta aattgttgga tcacatcaca gaaaaatact cctacgtagt atataaatat 300  
aatgtatgc aagtatgtat tagctgcatt aatgtgagac gaacacttga aggtgacttg 360  
ag 362

<210> 10124

<211> 406

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-F10

<400> 10124

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atgacatcac ctataactga ttttgcccggt ttgcctccc tggtagtggt gttctaattt 120  
ctcccgctct gggcctttct ttatctgttt ttttatgtct gagttgtttg tttgtttgta 180  
tttttaccaa aagggaagaa aaactacaca tgaagcccat ctgtaccaa taaaatgacg 240  
agaaatcctt tcgttccttg tttcttctac attcttcttc tttttgtcaa aaggagcctc 300  
attaaaaaaaa ttgcacgcac aagtcggcct ggtctatgtg tgtgcgcatt ttggtagag 360  
ttgggttaaa ttggtgaaac aatcagctcc gttcatcagt tataac 406

<210> 10125

<211> 225

<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-046-Q1-E1-F3

<400>       10125

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agccatttct acggcgctcg aaatcttgcc aaatccatca agcgaagcaa gaataacctc  120
tccaggcaat aggctgaaga acttcttgcc agcttttgag ttaaccaatg agcttgtaac  180
agagctagta agcttcacaa ctccagacag tattccagtt gccac                      225
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<210>       10126

<211>       415

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-046-Q1-E1-F4

<400>       10126

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agttcttacc tcgaaggcgt cattctggca aaccgagata aggacaactt cctcgtgcct  120
tactttcccg agtaagtcct cccctcaacc gcccgtaac atatgaattc ctagatttcg  180
atcgtttttc ttttaacatt ccgtgttttc tgcagtgaca cacattccac gctcatcctc  240
ctaagcccca aatattccat ggccacgtat ttcgaccggg accgtcagtc gaacgtagac  300
tacacaaatg tcaagaaggt tcttgatgat gttctccccg gctacgtcaa atctggaggc  360
accttcacca ggcctattcg taagtacggc aagcacgtgt tctcgacaaa tacga          415
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<210>       10127

<211>       274

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-046-Q1-E1-F8

<400>       10127

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tccttctgac gatgtgatgg gggaagatgg taacgataga tactagaccg tgcgcaggca  120
ctacacattc cggcatgcct acacccaatg gccgttatgc cactacctta catcgtgtct  180
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gttacgccgc atacggtaag tctatatact tacacgtcta ttgcatttgt tgcgccagaa 240  
aggcatttca ggttgatcgg cataactcagg ttg 274

<210> 10128  
<211> 413  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-G1

<400> 10128

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gggtcgggaa ggtgcacact actttgctgt ctgtcgaagc cgaaacacc gacctggtag 180  
cttcgtgatg ttcttttggg ccctgttga acgatggctg tgaccttaca caaagtgaac 240  
agatggattt gaaatttgta ttgagtccta cgctgcaatc tcgcaaaacc tagagagatt 300  
tgtgtgtaaa catgacgac agtcttggtt tgttttgacg tggaactcaa tgtatgcgca 360  
acggctcttt cctgacgcac caaagtgaag tgaaatcggg gtccctgtttg cgt 413

<210> 10129  
<211> 399  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-G3

<400> 10129

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gaggaggtat catcgagcca tccctgcagg cgcttgcccg caagtacaac caggagaaga 120  
tgatctgccg caaatgctat gcgcgcctgc accctagggc tgtcaactgc cgcaagaaga 180  
agtgtggcca cagcaaccag ctgaggccca agaagaagat caagaactag agtgccacta 240  
gtcagtttca tgggccggtt gaatccatcg cgtgtcggag tttatgctat tatcgtctcg 300  
tttgcgttg aacctatatt tactttgctt tcagcctcgt atcgttgtgg tgataattga 360  
cagtattggt atatggtagc agacctataa ttttgccgt 399

<210> 10130

<211> 389  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-G5

<400> 10130

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atgggaagat gatgagaacc gcctgatgaa gaagctgctg agaaccagcg ccggcgctctc 180  
ccagccagcg cctgtgaatg gaattgacgg ccagccagtt ttattagcga tggggcctgt 240  
atataagcaa tgaaaaaggc gcgagggcga gcagcaaac gcagaactgg cgccagaaaa 300  
gttggtgaga agcgagtggg cgggaaaaag ttgttgcaat cacgcatata gcagacgcgt 360  
ttgtgaaaaa acggataaag ctcgttttt 389

<210> 10131  
<211> 361  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-G7

<400> 10131

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gtgagatttt acagtttttc gtagtttaga tcgagtctgt tcttcatacc tacagtccac 180  
gaaggagcca caagaagcaa attagggta gttcatcata tccgagccaa tctgagcctt 240  
tgcacaatct ttttaggggt tttgctttgt tgaacttgca gttgcatcgt cgtgtcaagt 300  
tgctggtctt agagtctagt ctttagagt ttcgagttcg ggtcataagt tgtcacgccg 360  
c 361

<210> 10132  
<211> 389  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-G8

<400> 10132

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cgggacgcgc ggcgcgtcgc ggcaagtctt ttgaaatgcc ttggttgcc ttccccggcaa 180  
gtcctctcttg ccggggcctt gtccttcccg gcaagctcct cttgccagag tcttgtcttc 240  
tcagtgaaaa cactttgttc ttgaatggca tcaatacgag ctacggagga tcttggcgga 300  
cgccccggcaa gccctgccac tgggtgctgc gactgcccgt gcacaagttc gggatactaa 360  
ggtacccta ctttagtaca ccgacagtg 389

<210> 10133

<211> 432

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-H1

<400> 10133

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caccgacgca tgcgaccaga ggaggcccca gtcgacggaa gaaatgtttc caccacgag 180  
aaggcagatg tgggcgcgac gtattgcct gtcacagacg gcttcatttg ctgtcagttc 240  
ccacggaata cggcctatat ttatggctaa acagcagcac tacgccgtct cagcagacg 300  
caggcggaag cacatcggcg cacaggacta gcatgcagtg taccgtgcag gttaaacaaa 360  
ggaccctctc cccacaaaa aagcaaaggg caggaggaa aaaaaagcgg gcctctaaag 420  
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<210> 10134

<211> 249

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-A10

<400> 10134

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caagatcgcc atgcaggcca acgacgccag atgaaaaccg acccatgagc ttatcagccg 120  
 ttgcaagttt ctactcatta gtaaatacaca caatacacga tatcataaga gagctaacag 180  
 atatagacgg tatcgattct accgtaaaca tgtgaatgca tcagagagta tcatccaatt 240  
 agtatacac 249

<210> 10135  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-047-Q1-E1-B11  
 <400> 10135

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 aaccaagata aggataactt cctcgtgcct tactttcccg agtaagtcct cccctcaacc 180  
 ggcccataac atatgaattc ttacatttcg atcggttttc ttttaacatt ccatgttttc 240  
 tgcagtgaca caogttgcac gtcctcctc ctaagcccca aatattccat ggccacgtat 300  
 ttcgaccggg accgttagtc gaacatagac tacacaaatg tcaagaaggc tcttgatgat 360  
 gttctccccg gctacgcaa atctggaggc accttcacca ggctagtca taa 413

<210> 10136  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-047-Q1-E1-B9  
 <400> 10136

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 tccagcttcg tcttcgtaat catcatcact actgtcgggg tgggagtcgg tgctcgtgat 120  
 gatgatgtag tcttcagaac ggatgtcctc ctcaggtgtg ggatctccca tgaatacttc 180  
 tagcttcttc ttcaggtctt cattcttctc cagtaatact acaatttcct cctcatatcc 240  
 atcgcggtga gacttggtt cctcttcaag ctccatgttc ctggatcatc ccttcagatc 300  
 tatcatgcg gcgcacattt ggttctctg gcgacgaatg tgctggttta actcctggat 360

gaaggctgca atggacttgt cctccgggt gctgatcatc tccattgct catctcggcg 420  
cccacatatc agatagatag tgtcctt 447

<210> 10137  
<211> 465  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-047-Q1-E1-C10

<400> 10137

cgctgcccgg taccgggtccg aaattcccgg gtcgactccg aggagctcac tgtggaggag 60  
cgcaacctcc tctctgttgc atacaagaat gtgattggag cccgccgtgt ctcatggcgc 120  
accatctcct ccattgagca gaaggaggag agccgtggca atgaggaccg ggtcacgctc 180  
atcaaggaat accgtggcaa gatcgaaact gagcttagca agatctgtga tggcatcctc 240  
aagctgctcg aaaccacact tgtcccgtcc tccactgcc ctgagtccaa ggtcttctat 300  
cttaagatga agggtgacta ctacaggtat cttgcggaat tcaagagtgg gcctgagagg 360  
aaggatgctg ctgagaatac catggtggca tacaaggctg ctcangatat tgctttggct 420  
gagctggctc caactcatcc gattaggctt gggctggcac taaac 465

<210> 10138  
<211> 353  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-C12

<400> 10138

cctgccggtg cgggtccgaa cttcccgggt cgacttgccc gtcctcccga tcatectgtt 60  
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atgtgccggt attgctgtcc tttccgcgac gcgatttaga gcggcgccga ttacatcgac 180  
gcttttgggtg tatctcacga ggtttgtcct cgtctggacc attctcatca tcgccgtcgc 240  
attctttaag tgtgcccacc atctacacat cgtatgatga attggccgctc cagcgtccgg 300  
taaagtgtgg gttttggggc tgctcctctc tggcatcgctc gtccatacca tcg 353

<210> 10139  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-047-Q1-E1-D10  
  
 <400> 10139

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agctgctgca tctggtggtg ccgcagcacc tgctgctgag tcattgacgg aggagaaggt 120
tgatcagaac gaacaatctg atgaacacat gggtttcagt ctgttcgact aagcgcttca 180
gttccacccc cctaccctct gtttacccta gtatctgtcg tgtgtggcct gccacatcag 240
cgctgcata atatctagag acctgaagtt cgtgctatct tgcacgggac aatgtatatg 300
tttactacct tcgtatgtga atgtgttact gcttccatag ccttgagaag ttgaatgata 360
catcgctgga gttatgtctc tcgcaaa 387
  
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<210> 10140  
 <211> 370  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-047-Q1-E1-E11  
  
 <400> 10140

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tccaagctgg tgcacgagcc acggcattac tttggggatt tcttcgacgg cgtcgttccc 120
ctaccacaaa acagtaccgt atgacaaact ctgtactact atgtacaaca aaatgtacat 180
tatctttttg ctcattccca atcttcttct caagttgggg ttgggggatgc tgttgctgtg 240
gagagacctc tgtggggacg actaatgaac caatgggggtg gatgacagtg tgcgttgaat 300
aatctgagaa ttgcctgagc tttgcgatga gaaccgtctg aagaatttca caacaaaaaa 360
gcgggcgctc 370
  
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<210> 10141  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-047-Q1-E1-E12

<400> 10141

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ggacaccttt gcctctatca agtggtatca gatttccagg ttgctcgggtg agattttaca 120  
gtttttcgta gtttagatcg agtctgttct tcatacctat agtccacgaa aaagccagga 180  
aaaaattagg gttagtcat cccatccgga gcaatctgag ccttgcataa tcttttcgggt 240  
atttgctttg ttgaatttgc ggttgcacg tcgtgttcag ttgctggtct tagcgtctag 300  
tcttttagag tttcgagttc tgttcacaag ttgtcacgcc gtcggtgcac catcatcatc 360  
gcccctgcc tctaccacca gcgctctgaa tccgtatcca tataccacca gcaatccgtg 420  
gtc 423

<210> 10142

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-E9

<400> 10142

cgggtcgacg ttgataaggg tggtcggtac gccggatcaa acacgtgcaa atactgtata 60  
ccgcaacaca cagacacaca ccgtacacca tgactgtgcc acacgtacat acatgcaagc 120  
atacctgttc gaccagcggg acatggctcg ccgcatgtgg agagtaccga cgaggataag 180  
cgcgttccag acggtcatcg atgtcgatgt ccgccgtacg ctgaccggca ggccttaagt 240  
ctccgtgctg actgtaccta agctgggtcg tcgtcgtaca cgacacgtcg atcatttcat 300  
acgtgctgta gaaacaacgc atactgttca accgtggaga caatgtcgat cgggatctgg 360  
atggatgtgc actgtggcga acaaccaacc agactgcac tttctgatgg ccgtatgcat 420  
ctttctgatg 430

<210> 10143

<211> 322

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-F10

<400> 10143

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gtcatccacg tcgcattgct gtgcacggtc gagcacagca tgcagcgctc gacgatgcgg 120  
gaggtcgtgc agatcctcag tgagctccca gggccagctg gtaatcaacg tgacgaagat 180  
gagcttcacc tcgccggcta acgccctgag tccaaccctc ctgcctcaga tattttctaca 240  
gaaacaccaa ctggcaatcc gatagatcag caaccgcagc agcagcacac tagctcggag 300  
tcgtcgcttc atcctgatct ca 322

<210> 10144

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-F9

<400> 10144

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tttggcttag ggttgatggg gcgctgatga gattgagggg taccggttta cattgttctt 120  
ttggaagtaa ggaagcaaac ccggttgtag tgcgtgaact ttgctggaga gaagcaacat 180  
ttgctgccat gtctgcggag gggatcctt ccgattctgc ggcatacgca gaccgaatc 240  
ttgtcgcccc caagctgccc gtggtgatgc agaagacca gaagctgaag ataccagtt 300  
aacctgctaa gacacctcta ccgtgtgttc ggtacatcca tgagtgggtca accgtgggtca 360  
caactctatt tgcattgtgt gtagatgtga gctatcggtg ctttaccat ttatcttgag 420  
gcccttgcca ctggcaagta atg 443

<210> 10145

<211> 375

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-A12

<400> 10145

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cgtaagaat acagcattcc tcaaatcatt ccgtcagagg gttcaaacg ggatcctggc 120  
gctacattat gcgaggcagt ggatggggac aaagctacag agaactctat cgctggatat 180

gagatcaacc agtccaggat gattcttttt tatgaagttt tgggattagc caagaacatc 240  
 tgggaactcc ctgcaaaatt caagatttgc cacttgatt gttgacaggt gggccaagaa 300  
 atttggcaag attatcgcta tcaacaattc aacatggaca caatcaaca atccgaaagg 360  
 ggggggggca tctgc 375

<210> 10146  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-001-Q1-E1-A3  
 <400> 10146

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 tgcaaggatg aggggtggctg caaacgagaa ggcggaggct gagaagattg tccagatcaa 120  
 gcgtgccgag ggtgaagcag aggccaagta cctgtctggc ctcggtatcg cccgccagcg 180  
 ccaggccatt gtggatggcc tgagggacag cgtcctgggc ttctcagtca atgtgcctgg 240  
 caccactgca aaggatgtga tggacatggt gctgatcacc cagtacttcg atactatgaa 300  
 agagattggc gcgtcctcca agtcctcggc ggtgttcac ccccatggcc ctggtgcggt 360  
 gcgcgacatc gccacgcaga ttcgtggacg tcttcttcaa gggcagtcctg cctctgacaa 420  
 ct 422

<210> 10147  
 <211> 170  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-001-Q1-E1-A4  
 <400> 10147

tgcagccacg gtctagctag ccgggtcgac cgtgtcacgc tgtaaggatga actccagcac 60  
 atctcctgcg acgacatcgc cttgcagatt ctggaggatg ttgacaacgt cgccgcatga 120  
 gaggcctccc ggctcgatgt gatagacacc aggagcgaat gccgggtctg 170

<210> 10148  
 <211> 432

<212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-001-Q1-E1-A5

<400> 10148

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tcccgaaatc tgtccgacaa cagatttaag tcatgtcat cgcggctgtt cggcactcct 120
gatgtggggc cgaatccgtt gaagatcaag tctccgcgga tatcgttcgt gtaattcaag 180
tttccaaacc tgacctaata gccaggggag tagctgtcga tctactccag atggccaagc 240
gaattggccc gcagtgcgaa gccgccgaac acgaaaatct gtccggggag aaaagtctca 300
ccctagaccg cattgttgaa gattgaagg gccatcaagc cttatagcaa tgacacagag 360
gaactctcaa tgaaagcacc aatgtcgggtg tcaaaaacgg cggatcttgg gtanggggtc 420
ccgaactgtg cg 432
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<210> 10149  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-A6

<400> 10149

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ccggttttga caccacggcg tggagcttca tttccgactg aggggtagaa gggggatttc 60
gcgtgtctgg gctgcgggag cgatttcgga tgaggaggga gttctcgcgc gcgtccaaat 120
tttgggataa caaggcgcga cgcgggttga agaagcggga gtttcaaagc aggtgagaca 180
aaagatactc gagcttgaaa atttcgggat aacaagggtc ggattccttg ttcggcagaa 240
caaacttaac gtgtaaaaaa aatcatacaa gacacaagag agtcatgtcc ccctttacta 300
tattgctata gatgccattg aaaaaactac aagaaaaatg taaaaaaaaa ttgggagaac 360
atgattaacc tgcacagtac caaatccaat ccacttccc c 401
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<210> 10150  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-B1

<400> 10150

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ttaaaacagt tcatgacatt tgaaagaaag tccagaaact tcaaaaaagt tcatgaagtt 120  
gaaaaagtta attgattttg aaaaaaatcc aacacaacta aaagaaataa ttcattcaatt 180  
ttgaaaaaaa gtaagttcat ctgttttgga aaaaattaaa tcaaaaatga agaaagagtt 240  
catcgatttt gaaaaatggt catcgaattt ggaaaaagtt tatcgatttt gaaaaaagag 300  
tgtgtctata gtgaaaaaag ttcacgcggt tttaaaaaat tagttgattt aagaaaagaa 360  
ttcaatcggg tttttaaaaa attagttgat tttaagaaaa gag 403

<210> 10151

<211> 353

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-B2

<400> 10151

ccgggcgagg cagacgacag aagggaagcc tactggcaa gaccatcacc ctggagggtg 60  
agtcctcaga caccattgac aatgtgaagg ccaagatcca ggacgaggag ggcatcctcc 120  
cggaccagca ggggcgcatc ctgcgcgga agcagcttga ggatggccgc acccttgagg 180  
gctacaacat ccagaaggag tccacccttc acttggtgct ccgcctgcgt ggtggccagt 240  
aagtcctgg cgatggatct ctgattctgt cttcgggtgc cttcaatgga gtctcgtctt 300  
gtgcctatca ttgcctgatt tggccttggt tctgtaccgt gactgtgatg cag 353

<210> 10152

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-B3

<400> 10152

cgacagaaag ggagtgtagt gcgtgggttt gatgacttgt agatttttgc aaaacgtatg 60  
tgggttcttt atgactaatg ttgagttcat ggattatagc cactctcacc cttccagcag 120



tgctagcctc tcttgtgccg cacaactttc gccggtacca taaaccocatc atttatcttc 180  
 ctcagaacag ccaccatacc tacctattat ggcattttcca tagccattcc gagatatatt 240  
 gccatgcaac tttccaccgt tccgtttatt atgacaggct tcatcatact catattgctt 300  
 tgcataatca agtagttgac atcgtatttg tgtcatggcc tccattcata attttttata 360  
 catgtcactc ttgattcatt gcacatcccg atacaaggct gggagcattc acagagcgtc 420  
 catattttgt ttcaa 435

<210> 10153  
 <211> 307  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-B4

<400> 10153

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 tcactgaata tgatatgttt gattccttgc aatagttttg cgatataaag gtgggtgatat 120  
 tagagttgtg ctagttgagt aattgtgaaa ttgatcatta cttgtgttga ggtttacaag 180  
 tcacgtagca tgcacgtatg gtgaaccatt atgtaacgaa gttggcgcat gaggtgctct 240  
 ttgattgctt tccttatgaa tggcagtcga agacaagcga tgggtcttttc ctaccaatct 300  
 atccctc 307

<210> 10154  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-001-Q1-E1-B5

<400> 10154

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 aataagaaag gaattcaagt gcagctcaac ctgaagagca atggcaacgg gtcgagcgca 120  
 aagaaggcgc cagcagcaag atcaaaagct cctgggtctg cagggaaggc tgtcggaggc 180  
 tcaggcggga agcgggaagag gtagectacc gccgccgcac aatgatgact ggctggaage 240  
 aacagacccc agatagttgg tggctctgtg tttggtttct cctgttacct cagttgttcn 300

catttgtagg gaaaacctgt ttgcttgacac ttcatttgct cttgtgtttc tcgccgctgc 360  
 cggaggggct tgtttagcgt gtgagctttt tctcctgacg caat 404

<210> 10155  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-B8

<400> 10155

gagactttca agccggcgat agaacaagat atgggcagtg ctgaggaggc gtatgccggg 60  
 accaagtcac gggcgccctaa caacggcatc ctcatcagtg ggtgccaaac cagccagaca 120  
 tcagcagatg caaccatacc ggggggtacg tcctttggcg cgatgagcaa tgccatccag 180  
 gccattctcg cgagcgatga tggaaagata acaaacaagg atctcgatcat gaaagcgcgt 240  
 gcagcgtgt ccaagcaagg atacactcag cagcctgggc tctactgcag tgatgagcat 300  
 gttcatgtgg ctttcatctg ctgaaacatg gattgatgtt gtgctttttt ttcctttctg 360  
 tgatgagctg tgcacga 377

<210> 10156  
 <211> 346  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-B9

<400> 10156

gactcactca gaatatcgga gaggtatctc taagccctct cggtaatata catcataaga 60  
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 aagagacttg ccggtaacga gattgaacta ggtatgaaga ttaccgacga tcaaactctg 180  
 ggtaagtaac ataccgatta acaaagggaa ttatgtatgt tgcataaagg ttgcaccgat 240  
 agagatcttc gtagaatatg taggagccaa tatgggaatt atgtatgttg tcataaagg 300  
 acgctatttg ttattgaccg gagaggtgtc tcagtcagtg ctacat 346

<210> 10157  
 <211> 358

<212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB31-001-Q1-E1-C1  
 <400> 10157  
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 attcaggcca agaaggttaa caccctcatc aggctgatg gcaagaagaa ggcgtacgtg 120  
 aagctgacac cagactacga tgctcttgat gtggccaaca agatcggcat catataagtc 180  
 agagggaggg tcctgcagta ggcgcttggtg tcgtggtttc ttgtgttatt ggaattttgt 240  
 agttgttact tagcaaagg gctcagtggc tccattgcct accatatcgc tgcacacttt 300  
 catgaatttg atgcaatcga agtgacttgt tgttgagctt tgcgtttggt cttaaaaa 358

<210> 10158  
 <211> 366  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB31-001-Q1-E1-C2  
 <400> 10158  
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 caagcagagg acggacgttc tgctgcgtca agcagccacc tggcgggtcag aagggtgcct 180  
 actacgccat ccatcacatg ctggcgatcg tacgggacca tcatcaactt ctgctaccga 240  
 gtacactcac agattggggc gcgagcgtgt tggcaatcca agaccgggac atcagacaac 300  
 aattctttcg catcgagtcg gagtttgagg aatcatcca tcaagatgtc cttcgtacct 360  
 cggggc 366

<210> 10159  
 <211> 385  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB31-001-Q1-E1-C3  
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gtcacctttt gttgtcagaa tggcaaaact tagttagcat agtgtttcag gtgtttcaat 120  
 taatagtgtg tcattttttt gaggtactga tgctctcatg ttgtaagcgc tcaccgtgat 180  
 taggtttctt tgatggcggg gcagagttgc agagtgtcc aactgaaaga tcccttggtc 240  
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 gtatggcggt ggaggacacg tcaatcgccc acgatcacct gtcagaacac agcagcagta 360  
 catttttagac gtaatgctat gtgta 385

<210> 10160

<211> 406

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-C8

<400> 10160

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 acctctcagg tcatcatcat gaaccaccct ggtcagatcg gcaacggcta cgccccagt 120  
 ctggactgcc acacctcca cattgctgtc aagtttgctg agctggtgac caagattgac 180  
 aggcgatctg gtaaggagat tgaggctgcg cccaagttcc tgaagaacgg tgacgctggt 240  
 attgtgaaga tgattccac caagcccatg gttgtggaga ccttcgccac ctaccacct 300  
 cttggccgct tcgctgtgcg tgacatgaga caaacgggtg ctggtggtgt catcaacggc 360  
 gttgagaaga aggacccac cggcgccaac gttaccaagg ctgcca 406

<210> 10161

<211> 396

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-D1

<400> 10161

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 agattgtcca gatcaagcgt gccgaggggtg aagcagaggc caagtacctg tctggcctcg 180  
 gtatcgcccc ccagcgccag gccattgtgg atggcctgag ggacagcgtc ctgggcttct 240

cagtcaatgt gcctggcacc actgcaaagg acgtgatgga catggtgctg atcaccagct 300  
 actttgatac tatgaaagag gtcggcgctg cctccaagtc ctggcggtg ttcattcccc 360  
 atggccctgg tgcggtgctg gacatcgcca cgcaga 396

<210> 10162  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-001-Q1-E1-D2  
 <400> 10162

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 taatttggat cgagagcaca gattcacgtg aaattcaatc agatgttagt atcaaagaaa 180  
 attagtaagt gaaagtgcta aaagaaacat aacataacaa tggggaaaac cggtgcgcgt 240  
 aactcctgat tgcacagggt ccgggtaacc gtccgaccaa tttgggtctc ttgtacgcag 300  
 tctttcccta catttcagca aggctgtttc caagaacgaa agccgtgacg caccggcaca 360  
 aggaacaac tctacag 377

<210> 10163  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-001-Q1-E1-D3  
 <400> 10163

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 tgaagaggcg gataatatat tacgtggctg tttgataccg ccagaaagac aagcaaaaga 120  
 ttctaaggaa tcaaaagaag gaaaaattgg gtctatgttc aacggaaaaa cattctcaag 180  
 agcaaggaaa agtattttgt ttccgttcgc cctacagtgg catatgaaat ggacgaatga 240  
 agaaatttat caacactttt cccgcagat ctcttcgagg aagaaaataa tctccagatt 300  
 cgacttgatc attttatttc tcaagacaat agcaagttaa ctcaaagaat ttatcacaca 360  
 aacagtcaat ttgttagaac t 381

<210> 10164  
 <211> 375  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-D4

<400> 10164

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tcgacgaatg ggcaggtaca accttggtcg actggatgtc ggtctggaca acaaagtcct  180
caggaatfff cactatgttt ggacgccgtt tggaattgat ttcttgcgag tgtaaagaca  240
tgcatactcc accaactggc attgagcagt atgtgaatag gttccgacta aagaatgtta  300
ttgaatgact ataaaatggg tgtgccacat ccaagaatga tgatattgca tcatgggtata  360
atcaataatt ataca                                                    375
  
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<210> 10165  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-D7

<400> 10165

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tgtataatgg cgaaggaggc aggggggtcaa tgagccctaa tggcgagcca gtggtggatg  180
ctaaacctgt ggaagtcttt gtgagcagca agaagaggga ggatgaagag gaaggatatga  240
tagatgaata cggagaggag ggtatgatag ccgatgatga ccctcgcgca attgcagctg  300
tgcagaacgg tgatgataag tgacaacgct ttgaacgatg aatttgctat ttcaacaaca  360
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<223> Clone ID: LIB31-001-Q1-E1-E1

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ttctccatgc atcgcggcca tccgtgggtt tctccagggt gcccgtaac cgtcctccag 180  
ccagtactga attttgaagt ccgtcatgag cttgatgtca tgggggttttc atcatcttga 240  
ctctcgcac tcacttatga atcactcaac caaccccgtc taccagcata ttacaataaa 300  
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<210> 10167

<211> 436

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-E11

<400> 10167

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ctgtagctac aaagatgatt atttagaaga acatagatga tgactaacta ttgagaagca 180  
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tcagaatgaa ataaaattga tggacagtgc cactccattg ataactagag ctagcagtgt 300  
gtttcatcta gatgggttaca ttttcttcat agaagaatgt acaatgctag aattagtaga 360  
cgcgagacag tcaagatctt catgcactca aactcgttg tactgagttt tttaacaata 420  
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<210> 10168

<211> 344

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-E2

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 tgtctgtatc gatatacatt gtgatctaca ctaaggccaa gatctgggca tcgcaccact 240  
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<210> 10169  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-E3

<400> 10169

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 gtagcgtgcc gaccgcatc acatcgactt tggaaccatt tcctacgcgc atcgacacct 180  
 cgtccctccc cagttgttgc ttggttcatt tccattgttg agaacttgag attaatggcc 240  
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 tatttttcgt cttgcgagaa attcatgggc tattcttgtt tgatgtgttg ttcttcttaa 360  
 actttgctct tgtattgatg atggtgtaat attactaaat attattgatg 410

<210> 10170  
 <211> 111  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-E5

<400> 10170

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 aaccttttta ggcattgaaag gcaagtattt tttttgtatt ttcattcttt t 111

<210> 10171  
 <211> 348  
 <212> DNA  
 <213> Triticum aestivum



<223> unsure at all n locations  
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gcggacgcgt tttaccctt gagttgcacg tagcttcgga tgcatacaat tgcatacgtt 180  
ttgcaccttc gtagttgcat ggattccgat aattctagtt gtacgtaagt gaaacaagag 240  
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agggcatatc aacactacga naatatattc ctggataata catgactg 348

<210> 10172  
<211> 343  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-E9

<400> 10172

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tcgtgcctta ctttcccgag taagtctcc cctcaaccgg cccgtaacat atgaattctt 180  
acatttcgat cgtttttctt ttaacatacc gtgtgttctg cagtgacaca cgttgcacgc 240  
tcatectcct aagcccaaaa tattccactg ggacgtattt cgaccggag cgtcagtcgt 300  
acgtagacta cacaaatgtc aagaaggttc ttgatgatgt tct 343

<210> 10173  
<211> 257  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-F12

<400> 10173

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aaaaatctaa aaaaacgtaa taatcgaatt tattaanaac tctgggtattc atcatggaga 180  
 ggtccatcgg tcaaactacg tccagcgaaa gtcaaaggga tagacccgac ggttgtctat 240  
 gtcagggtta gacggga 257

<210> 10174  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-F2

<400> 10174

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 ctcatgggtg ctgcagaaat gtgttcaact ggacgagctc ttttcaagac ccgcgcgcag 180  
 gaaaaatgtc atcctgttgg cggggtatga tgaggacaca aatgcgatat ttctgtcttc 240  
 ggattctcat gatttcatcc tccagctcga gtcggtgcag ttcagatata ttggaaggag 300  
 agaatgcaca cacttcagaa tgtattatcc gtatacaaat ttctacattg cagagaggcc 360  
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<210> 10175  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-F3

<400> 10175

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 agtgaagtgt acattcttta tcaagggtggc cctgttgaca aaatgatctt catagtgaga 180  
 ggcaagctag aaagcatcag tgcagatgga agcagggtc cgttacaaga tggagatgta 240  
 tgtggagagg aactcctcac atggtacttg gaacactctt caacaaataa agatggcggg 300  
 aaaagtagat ttcatggtat gcgtttggtt gctatacgta ccgtgcgatg cttaacgaat 360  
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<210> 10176  
<211> 238  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-F5

<400> 10176

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gagtttgtgc tactcatctt atcggaactt gcgtaactta agtctgtcct cagatattct 180  
tgcttccgcg gactcgtcca cgatcgagca cttctattcg atgccccgag gaccctgg 238

<210> 10177  
<211> 410  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-F9

<400> 10177

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atcaagaagt ggaagatcat ctaccgggtg tacctcaact ccaagaagac ggtggccgag 180  
ggccgccgca tcgccgccgc caaggcctgc cccgacccca cctgcatcga gatcgccgac 240  
agctgcgctt acctcaagat ccctcgcgcc attgagttgg ataaggcata cccgcgggat 300  
ttcttccagg tggggaaggt gaggggtcag ctcaccaatg atgacggctc ccagtcaacc 360  
ctgcaatcac aacaaagaag cagctaata tcaaatagca gagctgggtcc 410

<210> 10178  
<211> 422  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-G2

<400> 10178

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 gaaagtagtt tagcttagtt taaatttatg ttttatgttc ggttatgcaa aactatctat 180  
 gtttaggttt gaatgcatac tacttttcgt tgaaccttct ttgaacttga tcaaattaaa 240  
 gtttacaaca ttaagtttag gggatcgacc agaaatggcc aaaaattgct ggtatatata 300  
 tatataatag agagagagag agagagagag ggagagagta gcactattct gatccccgga 360  
 tcagaatagt tatttggatc acgatcagcc taaataggtt ccgacgggca tgttcccgaa 420  
 ct 422

<210> 10179  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-G3

<400> 10179

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 agttcgagac caccaagtac tactgcaccg tcattgatgc ccctggtcac cgtgacttca 240  
 tcaagaacat gatcacccgt acctcccagg ctgactgtgc tgttctcatc atcgactcca 300  
 ccactggtgg ttttgaggct ggtatctcca aggatgggca gacacgtgag cagccctcc 360  
 ttgctttcac tcttgagtg aagcagatga tctgctgctg caacaagat 409

<210> 10180  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-G4

<400> 10180

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gacaagcccc tccgtcttcc cctccaggac gtttacaaga ttggtggcat tggaactgtg 240  
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actggtctga caactgaagt caaatccgtt gagatgcacc atgagtctct cctggaagcg 360  
cttctgtgtg acaatgtt 378

<210> 10181

<211> 417

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-G7

<400> 10181

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cgcctgcacc caagggctgt caactgccgc aagaagaagt gtggccacag caaccagctg 180  
aggcccaaga agaagatcaa gaactagagt gctactagtc agtttcatgg accggttgaa 240  
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tttgctttca gctccaatc gttgtggtga tgataattga cagtattggt atatggtagc 360  
aaacctataa ttttgccaaa aaacagatgg tcagacaaaa aaaaaagcgg ccgctct 417

<210> 10182

<211> 347

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-G8

<400> 10182

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ttccaaaaaa acgtacttct atctcgaaaa agcgtattcg taaaaaatt tggaaaagga 180  
agggatattg gacatcgttg aaagcttttt cattagggaa atcactttct acaggtaatt 240  
caaaaagttt tttgtacag cataataaat aaaatacact ataataatta gaattagcct 300  
aacttaaaaa ccaatttgtt taaatacatc taaaaaaaat aggaagc 347

<210> 10183  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-H1

<400> 10183

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aatgttgagt ccatggatta tacgcactct cacctttccg ccattgctag cctctcttgt  180
accgcgcgaac tttttccggt accataaacc caccacatat ccttctctcaa aacagcctca  240
aaacaaccac catacctacc tattatggca tttccatagc cattccgaga tatattgcca  300
tgcaactttc caccgttccg tgtattatga catgcatcat cattgtcata ttgctttgca  360
tgatcatgta gttgacatcg tatttgtggc atagccaccg ttcatcattt gttatacatg  420
tcgctcttcc atcaatgcac atc                                             443
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<210> 10184  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-H11

<400> 10184

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cctggacgtg acatttccagc agcacgccat cgtttatcgc agacaggcca acctgacggg  180
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tcgcgcctcg ttaggcggtt gtccgtgatg tcatccatca ccagcgcaga cgctggagc  360
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<210> 10185  
 <211> 418  
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<213>       Triticum aestivum

<223>       Clone ID: LIB31-001-Q1-E1-H12

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ggcggacgac aagaagaaga tcgaggacgc cattgacgct gccatccagt ggctggacac   180  
aaaccagctc gctgaggcgg atgagttcga ggacaagatg aaggagctgg aggctctgtg   240  
caaccccatc atcgccaaga tgtaccaggg tgctgggtgcc gacatggagg gcggcatgga   300  
cgatgacacc ccggctgctt ccggcgggtgc tggccccaag atcgaggaag ttgactaaac   360  
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<210>       10186

<211>       269

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-001-Q1-E1-H3

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cctccactac ggctctgggc tggagtgggc gtacgagatg aagcgcatgc atgacgagag   180  
tgactcgggc ggctaagctt ccttaagctc atccagctac tgaaaagtga tctatccgca   240  
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<211>       291

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-001-Q1-E1-H4

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caacgcttat ttgatcgatt tccagttaag catcctacct agctgtagct gctaaaacgg 180  
atcggacgac gcaattcctg ctatgttctc cagtgtgttt ccagacctct tgtgttttat 240  
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<210> 10188  
<211> 414  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-001-Q1-E1-H5

<400> 10188

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tgatcttgtc agagaaggaa gagcctgtga agaaggaggc tgataacgtc gtcgcaccaa 180  
ggaaagctat ctaagctacc ggaatggatg cattcgtcca acagtcttag ttgtagttct 240  
tctcaagtac ctttgttggc agtgtntgtt gcctccttga tgtntttgtt accaacattg 300  
agtaaggatt tgttaaggtt gatgctatcc ttgtgattgc gagtggtctt tatatgctaa 360  
aacagtttca gatagttgag cattagcaca ccagaaccta tttctcagag atgc 414

<210> 10189  
<211> 438  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-H8

<400> 10189

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tagtttagat cgagtctgtt cttcatacct acagtccacg aaaaagccac aaaaaaaat 180  
tagggttagt tcatcatatc cgaaccaatc tgagcctttg cataatcttt ttagggtttt 240  
gctttgttga atttgcggtt gcacgtcgt gtctagttgc tggctcttaga gtctagttct 300  
ttagagtttc gagttctggt cataagttgt cacgccgccc ccgcaccatc atcatcgccc 360  
ctgccatcta ccaccaccgc ttatccgcca ccgctccgaa tccgtatcca tataccacca 420



ccaatccgtg tccatata

438

<210> 10190

<211> 397

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-A1

<400> 10190

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cccttaacag aactattctc tctggtagat gtttcctaca taatctctcc ctaataataa 180  
agcacggatt gactttgtcg ggttcaccgt cacaatactc ttcttcccgt gaatttacac 240  
tttcagttca natttannac atattcaagg tggactaat tttttgctaa ttcttggttt 300  
cgtctgctcc tacgtctatg tcgccccgta cgctcctaat cgggcttgct cagcctacna 360  
acaaagtggg ccgtatgttc nnttgcgctg caccttt 397

<210> 10191

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-A11

<400> 10191

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ttcagaggtg acaaaaaaga gagggtgagc attggtttgg aggacacatg aggaaaagat 180  
gggaaaatac cggtttcctt gcttcatagt cgccacgtac tcaattggaa aatgtctgat 240  
ctggaccttt gagttttcat agtgacgggt ccatgtctct ttgaggttgt tgatgaagta 300  
ttcaccatgc gtagtaagggt ctgcatcagc ttctgaacgc attgaatcaa gcacctcaaa 360  
acgttggttc ttcaagtcaa ggcagatcgc atagtgggtga acacacttgt cgtg 414

<210> 10192

<211> 406  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-A3

<400> 10192

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agggtgctaag aacagaaata ttaaaaacttc taaaagaagg tataatctat cctatagttg 180  
atagtagatg ggtaagtcac gttcattgtg tccctaagaa aggaggtatt actgttggtc 240  
ctaatagataa gaatgaattc attccacaaa gaattgttac aggctataga atggtaattg 300  
attttagaaa attaaataaa gcaactagga aagatcaata cgctttgcct tttattgatc 360  
aaatgcttga aagattatct aagcacacac acttttgctg ccttga 406

<210> 10193  
<211> 455  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-002-Q1-E1-A4

<400> 10193

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caaaatgaca aaaaagtaat gcgggttcatt tcaatatata ttgtggttca cttgccctcg 180  
tctctgcggt ccactctcac tcataaaaaa tgttgaaaaa aatacaacaa aaactcgtgt 240  
gagaaaaatt acgtccaaca aaggaaacca tgaagttcac ttgactgtct gatgcggtgc 300  
gactttttta tctaaagcag tgcgttcctt tgtctgatgt ggtacatacg acgattttgg 360  
gtcgccaaaa aatagagtgt ccatatttcg ttaaaatcaa aattgctctt aaaccgtaag 420  
gaagttcgct tcttatcaga tgtagttcac tcgct 455

<210> 10194  
<211> 443  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-002-Q1-E1-A5

<400> 10194

aattgncggg tgcacgtgta tagctatggg attgtgctgt gggagctcat gaccggcatg 60  
ctcccccttca caaacatgac agcagttcag gccgcttttg ccgtggtaaa caagaacgcc 120  
cgccctgcaa tcccgaaga ttgcctgcct gctctgagcc acatcatgac gcgctgctgg 180  
gatgcaaacc ctgaagtccg cccgtcattc aacgaggctg tcaccatgct cgaggctgcc 240  
gagacggacg tcgttagcaa cgtccgtaag gcacggttcc gctgctgcat ctccgagccc 300  
atgaccaccg actgagacta gtgccaggat acagagtacc agaaaatgaa aaaatgggaa 360  
gaagaacgag gatgggaaag gaggcgacac aatctcgatg tacagaccac actgatacac 420  
ctgngcgttg cgtgtgcctg cct 443

<210> 10195

<211> 405

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-A7

<400> 10195

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ctcatcacag gggctctctt atcagcaaaa tagctactct agatgcgcag atgacgatcc 120  
agccgcgggt gcgctttatc tcgtcgggac gaaatagccc tgccctgtcc ctgccgccgc 180  
cggtagaggc tattttccat angccaaggc gaacatccgt gtctaattgg gcgaatttag 240  
tctggttcca tgagcacttc gttccccgcc atgcaatctt tgttgattcg gaaagatggg 300  
agctgtctgt ttagctaatt caatctacca ttgatcatgc taatTTTTGT tatataggaa 360  
acaacatgga catgctgccc ttttttccaa tcaaaatact tctgt 405

<210> 10196

<211> 387

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-B1

<400> 10196

agagagattt gagtgttggg gagactatca tttgaagcac aagagcaagg agttcatcat 60  
caacacacca tttgtactt cttggagagt ggtgtctcct agattggcta ggtgtcactt 120  
gggagcctcc gacaagattg tggggttgaa ccaaggagt tgaagggca aggagatcgc 180  
ctacttcgtg aagatctacc gctagtgagg caattccttc gtgggcgatg gccatgatgg 240  
gataggcaag gttgcttatt catggaccct tcgtgggtgg agccctctgt ggactcgcgc 300  
aaccgttaac cttcgtgggt tgaagtctcc atcaacgtgg atgtacgata gcaccaccta 360  
tcggaaccac gacaaaaaca tccgtgt 387

<210> 10197

<211> 450

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-B2

<400> 10197

ccgggtcgac cgtgccggtg cagcagggtca tgcacgtatt ctacgtcgcc ctgctgtgca 60  
ccgaggagca cagcgtgcag cgcccacga tgcgagaggt cgtgcagatc ctgagcgagc 120  
tcccaaagcc agctgccaac caagatggag aagaagagct tcctctctcc tgcgaaggac 180  
ctgaatccaa ccctcctgcc ccaaccagtt acaccgaggc accagccggc gacgcgaaag 240  
atcagcagcc gcagcagcgg cacacaagct cggagtcgtc gcctcctcct gatctcatca 300  
gcatctgac atccaagtac ccggaagcat cgccgtccgt cgcaaatatg ttggggcttc 360  
ctttgatcgt gcaagcttag gcctgaatct ggggttcgtt ggggtgagaga ctttggttgg 420  
gttggtgctgt acatatccaa gctgctttgg 450

<210> 10198

<211> 455

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-B4

<400> 10198

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 ttaattagct acctaacaca atatatgaaa cacattaatt aaccatacaa aacccccaaa 120  
 tcgccccctt tcagaaaaaa aaagaaaaac cctagcccct gaacagctga cgcgtggatg 180  
 cctattggtc ccggttgggtg tcaccaaccg ggaccaaagg gcctcctgcc tgggctcgcc 240  
 gcaccggcca catggaggcc catctgtcct gattcgtgta agaaccggga ctaaaggcca 300  
 agggcattag taacaacctt ttagtcccgg ttccaaaacc gagacagaag acccttacga 360  
 accgggacaa atggcccttt ttctactagt gtgtccattt tgtacacgaa gtgcatccag 420  
 tttttctcgt aaccctctca aaatttttagc acatg 455

<210> 10199

<211> 439

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-B5

<400> 10199

attgnccggt cgacagcagc aattaatgcc gaagggcagg tctgtgagct ggctgctagt 60  
 gtggggtccg ggaaggagag ctccccgccg gaattggagc tgtctgcggg gaaactcaat 120  
 ccgcaagcac catggttggc aatgaggatt cgcattggat cagcgagtcc atttagaggc 180  
 agcgtggtca agttagccgg actgtgggcg cccgcaataa taaaagagat tgggagacca 240  
 tgcagacctg ctcaactgaa gaaccacggt gtacaggggtc actcgagatt tttttgtac 300  
 aagccgggtg aaatgagact gggttcaggg gcttgagtcg gcgttcatgc caaatggta 360  
 gacagttggg ttcgaattcc ctccagttgt gcatcacaaa gagtttttag ttatgtcaac 420  
 gtgcgtgtgt tattttctgc 439

<210> 10200

<211> 406

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-B7

<400> 10200

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 cgccttcttc ctccccaaact actcctctcc tctcctccgc gcacgcgacc ggggtcacct 120  
 gagatcacac acacaatggt gaaggctgtg gctgtgctta ctggcagtga ggggtgtcaag 180  
 ggcaccatct tcttcaccca ggagggagag ggcccgacca ccgtgacggg aagtgtcacc 240  
 ggactcaagg aagggtcca cggttccat gtgcacgctc ttggcgacac caccaatggc 300  
 tgcattgcaa ctggaccaca cttcaacccc gctggtcatt tgcattgggc acctgaagat 360  
 gaaatccgcc atgctggtga tcttggaat gtgacagctg gattgg 406

<210> 10201  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-C1

<400> 10201

cccggtcga cttccaccaa agcgaaatcc accatctcat cgaaagacgg gacacctttg 60  
 cctctatcaa gtggtatcag agcggatca gttttcaggt tgctcgggtga gaatttcag 120  
 ttttctaga ttagatttat tttcttacct attgtccaag aaaaagccac aaaaagagt 180  
 tagatctatt catccttggc ccaagccagt ctgagccttt gcaattttct tttcattgct 240  
 tgcattgtt aattatcggc tgcattgctg tgcgagttg ctggtcttag tgtctagttc 300  
 gtttagagtt tcgagttctg ttcacattag tcacgccacc gctgcatcat tatctcttct 360  
 gctgtcaaca cccatccatc aatttcacc acatgccacc catcattcat tgcataata 420  
 atagttgaga tcgttcacat ctcc 444

<210> 10202  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-C10

<400> 10202

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 aatcgagctc gcgagcaccg catcgacgcc aacgccttcg tcttcaacct ccggttcggc 120

gggttaaccgt cgccattcgg cggcaacggc ggcttcccg cctccgtcaa gctcgtcttc 180  
 ggcatcaaaa tgctggagtc caggagctag agatcccag gatgatttta cgtggagttc 240  
 ggcttcgagg agtagttagg aggtcccagg caggaggcct tgccttttcg atcgttgcta 300  
 cttttgtgct agccttctta aggcaaactt gtttaactta tgtgtgtaca cagatattgt 360  
 cgcttccgct gactcgtcta tgatcgagca cttgtattcg agccctcgag gcccctggct 420  
 tgtattatga tgcttgt 437

<210> 10203  
 <211> 392  
 <212> DNA  
 <213> *Triticum aestivum*

<223> Clone ID: LIB31-002-Q1-E1-C2

<400> 10203

ctgattggct tccccgattt tctggtggaa agaacacggt ttgaagctgc tgttgccgag 60  
 aactggacta tcagagataa gtgcagaatt tgggtgggcca atgatgacgg aggaggaagt 120  
 tgggtgggagg gacgtgtgtt ggcaataaga cctaagtcac ctgattttcc tgagagtcca 180  
 tgggataaat atgccataca atacaagaat gatggttcag atcatctgca tagcccctgg 240  
 gagctccatg atgctgatag cccattgggt ccatggaaac atccacatat tgattccagt 300  
 attaggaata aattgttatc agcagtgacc agtttacaga acaagtctcg cagaaaccag 360  
 gattgctatg gtgtcctgaa gttggatgct gt 392

<210> 10204  
 <211> 247  
 <212> DNA  
 <213> *Triticum aestivum*

<223> Clone ID: LIB31-002-Q1-E1-C3

<400> 10204

cttctatgtg atggtagttt agatgatcga tatcgacttg taatgtgaag acaaactcgc 60  
 tactcacggt ctcgagactt gtaatataat gttctatctt tgttcgggtct tttcaattcg 120  
 gagactaata tgatgaattg tattcggaga ctaatatgat gaattgtatt cttctattgt 180  
 attcgatgaa tctgttgttg atgtgtgctg tctatTTTTT gtcaaactat acattttgta 240

acctgtg

247

<210> 10205  
<211> 458  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-002-Q1-E1-C4  
  
<400> 10205

cggtcaaaca atcccgggtc gacgaagggt ccttacagca cgtacagcat agctcaggtc 60  
tcctatgagc tcaacgtctt gggaacccga ggtcctaggg ggatgcgctg tgtaatgcac 120  
tccatccctg cctcatcgct cgaggctggt ggcagtgtcc cttgccaacc ggatatcatc 180  
ttctcccgtt ccctagacga atctttcagc agcatgccgg tctcgaaatc ttccgtcatg 240  
gaccattcca tgcgttttag cagtgccaga ttctccgacg tctcaatagg aggtggcccg 300  
gcgatcagag gacaagcctt gagcgacggc gatgatttga aggacacgcc gttgattctc 360  
cgcaacaagg ttccaagatg gcatgagcag ctgcagtgtt ggtgcctcaa cttccgtggc 420  
cgggtgactg tggtttctgt caagaacttc cagctcac 458

<210> 10206  
<211> 442  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-002-Q1-E1-C8  
  
<400> 10206

attcgcgggc cgacaagacg acagaagggg aatgatgagc atccaagttg ggtataataa 60  
aaactatcat agaaagtgca ttgaacacta ggatcaattt gatgcttgat aattgttttg 120  
agatataaag gcggtaatgt tagagtcagc ctagtgtgta attatgaaat tgagaaatac 180  
ttgtgttgga gttggcaagt cccgtagaat gcacgtatgg taaaagttgt gtgacaaatt 240  
tggttgatga ggtgctcttt cgattgtctt ccttatgagt ggcagtcggg gacgagcgat 300  
ggtcttttcc taccaacctt tcctctagg ggcagtcgta gtagtacttt gcttcgaggg 360  
ctaagtagac ttttgcaata agtatatgag ttctttatga ctaatgtgag tccatggata 420  
taagcacact cacccttcca ct 442



<210> 10207  
 <211> 375  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-C9

<400> 10207

tggaagatat cgagatctct cggtcgttat gttgacaatg aaagtatacc gctcaaaatg 60  
 ttattcatat ctatttcaaa accgagctct ggcacctcta caaatccctg cttccctctg 120  
 cgaaagtgcc atctatttac atttatgtgt agagtcacat tcctcttatt aaaacgcacc 180  
 atttgagag caccgctgta atttgtaccc attagtgtta ttttacacag tgtaacacat 240  
 gagagtatct cttttaccat gaattacaat ttctagtcag tccttgatct ttaaagggtgc 300  
 tctgcattta tgttttgctg tctcagaaag gtctagtgag ataccatctt gctatatcat 360  
 atcatgatta ttttg 375

<210> 10208  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-D1

<400> 10208

cgggtcgacc tccaccaaag agatatccat catctcatcg aaagacggga cacctccgcc 60  
 tataatcaagt ggtatcagat ttctagggtg ctcggtgaga ttttacagtt tttcgtagtt 120  
 tagatcgagt ctgtttctta tacctacagt ccacgaaaaa gccacaaaaa aattagggtt 180  
 agttcatcat atccgaacca atctgagcct ttgcataatc tttttagggt tttgctttgt 240  
 tgaatttgcg gttgcatcgt cgtgtctagt tgctggtctt agagtccagt ccttttagagt 300  
 ttcgagttct ggtcaaaagt tgtcacgccg gcgccgcaac atcatcatcg cccctggcat 360  
 ctaacaccaa cgcttaaccg ccaacgctcc gaatccgtat ccatatacca ccaccga 417

<210> 10209  
 <211> 367  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-D2

<400> 10209

gggtcgacaa atgggggaca taatataccg ctggtgtgcg gaaggagaaa aagaccagct 60  
cggaaagcca ggcgcgagag gttcaagaac tcaaggcaca ggtggcgcgagg attccggaga 120  
ttgtccagga gtgagtggaa caacgactcg gagcgacgat caccgccctt gtgcctacct 180  
tgatctcggg gttgagtgcg tggattgcgg gcggccaaca ggggccgccc ccgattccta 240  
gcttcacagc tagcaactcg cataatgcga tggcggggcc attggtgcct ccggcagagg 300  
cggcactggt gtctccgacg ccggcacggg agcttaatgc acccgggtgt acgccggccg 360  
gggactc 367

<210> 10210

<211> 446

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-D3

<400> 10210

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cgtgcggcgg ctgcttcgct tcgtgaccgg acgacctgtc cagacgtatg aggctggttt 120  
ggggcaccgg gctgtagatg tgctaagtta aaaaaatcca ccctttgtca aaaatgcacg 180  
catctgaagc gggcatccat ggatcgttgc tactaattag catgattagg tcatagtac 240  
aatactggag gttgttaaac attaaatcac atttgaatgg ttagatgtct acatcttgcc 300  
gacaatcagg gaaggtagct cccttatggg ggccgacggt ctttttctct ttttggtgag 360  
cccgacaaag tanctgtatt cgtaattttt ttaacaacac aatgagaact tcagttattg 420  
ttggttgata actttaagat gtgaaa 446

<210> 10211

<211> 453

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-D4

<400> 10211

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aagctcaaat ggacaagtac ttggccgtgg tgaatgaaaa agaagctgaa aataccgagc 120  
tggttgagaa gatgaatcat ctcgaggctc agctagttga agccaacaag gccagtgagg 180  
aagccaaggg cgagacccgt caactgaagg acaactatt agacaaagag aacgaattac 240  
agaacataca agaggagaat gaggacttgc aggcaaagga atcagctgct tcggagaaga 300  
taaaagagct ctcttatcta gtgccgaatg gaacgacaaa tgggtggcaac aaggaagaag 360  
ataacgagaa tgggtggcgg gtggatgacg aaccggctgt ggtggttgcc aagatgtggg 420  
agaacagcaa ggtcaccgac tacgactcat cca 453

<210> 10212

<211> 431

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-D5

<400> 10212

attcgccggt cgacgacggg ggatatgatg acctcagctc cccgaagacc aaggagatta 60  
tatgtcaga aataaggcca ccacatgaaa gaaaattttc ggccgacggg ggaggtgacg 120  
attcagaatc gtgttattct caccacacac cggtggctcc acccgccaag ccttcggtg 180  
tgagcgggaag ctgcaagaaa gaagccgccc ccaaggccgt atcactagcc gttgtcccaa 240  
gcaagcagaa ggggaacccc aacttgctca agaggatcct gacaggaacg aagaaggatg 300  
ccataatcaa accaaagggtg gtcctgagtg cttagctgac agagaccaag ggtaactcta 360  
tccatgataa attccatttc catgtgtaaa ttaaacctgt atcaattacc tggtgagctg 420  
tggttcttgt c 431

<210> 10213

<211> 450

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-D7

<400> 10213

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 atatcaaaca catcaaattc acatgattac ttctcccggtg acctcaagaa caaaagtaag 120  
 tactcacaaa tgatattcat gctgaagatg agatgggtat taaatagcat aatggatctg 180  
 aacatataat cttccaccaa ataaaccata tagtaatcaa ctacaagatg taatcaacac 240  
 tactagtcac ccacaggtac caatctgagg ttctggtaca aagattgaac acaggcacta 300  
 nggtttgaga ggagttggtg ctattgaaga tgttgatgaa gattggcctc ccaaagatga 360  
 gagggttggt cgtgatgacg atggcttcaa tttccccctt cgggaggga gttcccccg 420  
 cggaatcgct ccgccggagg gcaaaagtgc 450

<210> 10214  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-002-Q1-E1-E12

<400> 10214

atcttctca aaacggccac catacctacc tatcatggca tttccatagc cattccgaga 60  
 tatattgccca tgcaacttcc atcatcatca tatacatgac ttgagcattt attttcatat 120  
 tgctttgcat gatcgtaaga tagctagcat gatgttttca tggcttgtcc gttttttgat 180  
 gtaattgcta tgctagatca ttgcacatcc cggtagaccg ccggaggcat tcatatagag 240  
 tcatatcttt gttctagtat caagttgtaa tattgagttg taagtaaata aaagtgtgat 300  
 gatcatcatt attagagcat ttccccaaga aaaaaaaagg agaggccana gaagcctaaa 360  
 taaaaaaggg gggccaaaga agcccgc 387

<210> 10215  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-E2

<400> 10215

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gaggagatca atgctgaatt caaggagtct gttcttgctc gggttggtct gaagggtaca 120  
atcattttgc ggacgttacc accaaagaag gcagcagga gggagacaga gttctcatte 180  
cggcttgagg gtgcttctgg aatgaagagg gccgccttgc agagtaccgt gttgagcagc 240  
ctcgagaacg gcctgttcca tgtgaagaca ccatccaagg aggagcctat ccccatcatg 300  
aaatacagct tcttgcccaa gcactcacct ctccccctga gggttcccct tggtaagcgc 360  
cacagtggca cactgctccc gctgatgaaa cacaatgcgt cgaagccaaa gttgccgcaa 420  
ccactgagca atgttacatt c 441

<210> 10216  
<211> 440  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-F2

<400> 10216

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gcaaggatga ggggtggctgc aaacgagaag gcggaggctg agaagattgt ccagatcaag 120  
cgtgccgagg gtgaagcaga ggccaagtac ctgtctggcc tcggtatcgc ccgccagcgc 180  
caggccattg tggatggcct gagggacagc gtcctgggct tctcagtcaa tgtgcctggc 240  
accactgcaa aggatgtgat ggacatgggt ctgatcacc agtactttga tactatgaaa 300  
gaggtcggcg cgtcctccaa gtcctcggcg gtgttcaccc cccatggccc tggcgcggtg 360  
cgcgacatcg ccacgcagat ccgcgacgat cttcttcagg gccagtctgc ctctgacaac 420  
taagcagttt gcttcgccta 440

<210> 10217  
<211> 456  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-002-Q1-E1-F3

<400> 10217

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tcaacgggaa caaggggcgg tgctacgact tctggctgga cttcagctcg tgcagagcc 120

gctgccgcca gccctccgac tgcggcctcc tccgcgagga ctacctcgag tgcctccacc 180  
 actccaagga gttccaacgc aggaacagga tctacaagga ggagcaacgt cagataagag 240  
 ctgctgctcg caaggccaag gaggaagccg aaggagctcc tgctgttgca gctcaccact 300  
 agcateccctt ttcaattttt ttcttatgct tttgtttgtt gcaagcgctt ccatgttcgg 360  
 ctatgagcaa ggcaataatt acctaaacat tgcaccctcc cacctccatg acttgttcta 420  
 aaagcatgag tttgataaac taccttgggc atcaag 456

<210> 10218  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-F5

<400> 10218

acaaggtgat tgaaccggat tttcaaccaa agcaggggggt taagatagtt acagatgaga 60  
 aggccactag tctgtcctct gcatctgttg acgacgctgc tgtcattgaa gagcttattg 120  
 ccaagttaga agaagtttcc aaaacactgc catcaggggtt ccacatgaac ccaatacagt 180  
 ttgagaagga tgatgacaca aacttccata tggatgtgat agctggtttt gccaacatga 240  
 gggcaaggaa ctacagcatt cctgaagtgg acaagctcaa ggccagggtt atagccagca 300  
 ggatcatccc agctatcgcc acctccaccg cgatggccac tggcctcgtc tgccttgagc 360  
 tttacaaagc ccttgctggt ggacacaatg ttgaagacta ccgcaacacg tttgcaaacc 420  
 tcgctatccc tctct 435

<210> 10219  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-G1

<400> 10219

cccggtcga cctgtctggt ttaatttaac aactgccata ttttgacatg ctacaatagt 60  
 gcattttcat gtgctgaaac ccagctttc taacgattca cttgtctgca gatataattgt 120  
 atgactcgtg gtcaccagca atgacggtca gttccgtgtg catcagcatc ttgtccatgt 180

tgtcaagttc accagctaag gtcacccagc tccctctaca ttatctacaa tctaactgaa 240  
 cggatcatcta actgtacata ttgtttgcat gcaggaacgc ccatccgata acgatcgcta 300  
 cgtcaggaac tgccgcaacg ggaggtctcc gaaggagacg aggtggtggt ttcattgatga 360  
 caaagtgtga tgggtccag ctggtttctt cttccggcat cagcagctct tatacatcat 420  
 catcctgcct accgtagtat ggcgtg 446

<210> 10220  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-G2

<400> 10220

gggtcgaccg gatttgaag atagaaaatg gggaaaagaa agtctccact acttttttac 60  
 gggaagcaac ataattgaaa atacattatc atgtgtccaa tggcaccac acgtatcctc 120  
 atagttttat tttcttgagt tggctgacc gacatgtgga ccaacgaatg ggcatgtacg 180  
 ccacataagt aggagcacia tccgtgacgg tccggatggt gtatattaaa aaaatgctag 240  
 gcccgactaa gcccgcttgg tcaatctgag acggattctg tgacggtagc ccgacgtccg 300  
 tcatcaaggg cccgctgttt tcgggcccaa ccacggctta caaatcagtg acggtagtcg 360  
 tgacaggtca tggttttccc gtcatttca tgacagattc taggaatgtc agcacgaatc 420  
 cg 442

<210> 10221  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-G3

<400> 10221

cgggtcgacc tatgtcgtga acaaaggtaa ggttcccgga gtctacgatg actgggagga 60  
 gtgtcggaga caggttcacc gattcagcgg taacagttac aaagggtaca ccaactagggc 120  
 tgaggccgaa tctagatacg cccgctatct agcgggagag gggaggagc gttggaggaa 180  
 ccggatgaag acgattttca ttgtgatgat gctcatcgtg atgaccgcag ctctcttcta 240

tgtgatggta gtttagatga tcgatatcga cttgtaatgc aaagacaaac tcgctactcg 300  
 cggctctcgag acttgtaata taatgttcta tctttgttcg gtcttttttaa ttcagagact 360  
 aatatgatga attgtattcg gagactaata tgatgaattg tattcaaaga ctaatcttct 420  
 attgtatttg atgaatctat tg 442

<210> 10222  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-002-Q1-E1-G4  
 <400> 10222

cgggtcgact cccccctcct tccaacagag aggagaaaag ggaaagaggg ggagagggag 60  
 aaggaaaggg ggtctgcgcc cccaccctcct tgtccaattc ggactgccat gggggggcgc 120  
 cacctcttgt ggctgtctc ctctccacta tggcccatga ggcccattaa ctttcccggg 180  
 gggtttcggt aacctcccag tactccgaaa aatcccggaa cctcttcgga actattccgg 240  
 tgtccgtaca taaccttcca atatatcaat ctttacctct cgaccatttc gagactcctc 300  
 gtcattgtctg tgatttcctc cgggactcca aacaaacttc ggtcaccaa acacataact 360  
 cataatacaa atcgtcatcg aacgttaagc gttcggaccc tacgggttcg agaactatgt 420  
 agacatgacc gagacacatc 440

<210> 10223  
 <211> 304  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-002-Q1-E1-H1  
 <400> 10223

gggtcgacag gtttgataa taatcaagaa gcagctggca gtccctgatg ggaccctgt 60  
 cacagcggag tcaaaatttt ctgaacttgg tgctgactca ctggatacgg ttgagattgt 120  
 gatgggcctc gaggaagagt tcaacatcac cgttgatgaa acaagcgcgc aggacattgc 180  
 aaccgtgcag gatgcagcgg accttatcga gaagcttctg acagagaaga ccgcgtaagt 240  
 tctcgggttc attggacacc tttagaaggc aaatgtgtcg tctggatcgg ttggcttctg 300



304

<210>	10226
<211>	448
<212>	DNA
<213>	Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-H3

<400> 10226

ccgggtcgac tccgaggaat acactgtgga ggagcgcaac ctctctctg ttgcatacaa 60  
gaatgtgatt ggagcccgcc gtgcctcatg gcgcattc tctccattg aacagaagga 120  
ggagagccgt ggcaacgagg accgggtcac actcatcaag gaataccgtg gcaagatcga 180  
aactgagctt agcaagatct gtgatggcat cctcaagctg ctcgaaacct accttgtccc 240  
gtcttccact gcccctgagt ccaaggtctt ttatcttaag atgaagggtg actactacag 300  
gtatcttgcc gaattcaaga gtgggcctga gaggaaggat gctgctgaga ataccatggt 360  
ggcatacaag gctgctcagg atattgcttt ggctgagctg gctccaactc atccgattag 420  
gcttgggctg gcactaaact tctcgggtg 448

<210> 10227

<211> 364

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-H5

<400> 10227

gacagaagaa cgacgatgcc gagccgccgg gacatgatct gagtttgtcc ggatggactg 60  
cctcttgcta gatatgtacg tacgtatggt accattaatt aaccaagcat gtggtgattg 120  
cattatTTTT tggccctga ttggatctca tagtacttat gatacataac caactcaacc 180  
cccctccttg ctctcgattg tattatatgt gcgagcatcg ttctatgaca gttcttgata 240  
tactcacttg ttgaaccgca caagtgcagg ctgatgggtg tctctctga ctaacacccc 300  
cagctgacgc tcatggcagt cttaatgata acccactagc taattgcaag tgttgctttg 360  
tttt 364

<210> 10228

<211> 330

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-H9

<400> 10228

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gatgtgttgc gagagtggca gaagcttaaa ccctagttaa tgcgctattc cgtaagggac 120  
cgattggatc caaaagttaa atgctatggt tagaatttat tcttaatact tttctcatag 180  
ttgtagtgtc ttgcgagggg gttaatcata agtaggaggt tcgttcaatt aagaacagca 240  
cctaagcacc ggtccacca catatcanat tatcanagta gcgaacacga atcgaatcaa 300  
catgatgaaa gtgactagat gaaattccccg 330

<210> 10229

<211> 281

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-A1

<400> 10229

gaggtggctt tgattgtgaa ggaagtgacc gatgggcaga gcacctgggc agacatcatg 60  
tggagatacc cagcacatac cgccttggcc accgatgagg aacaagcttc agaaacctga 120  
agggtagagt cgaagagtct tccatgggtt gaagcgatgt ttggcttcct gagtttccga 180  
tgtgtgtcct gttaacagaa atactaatag agcgcttgcc ctgtagaccg acgcctgttt 240  
tcccctcacg tatgggtttc agccgttcgc tgtcaatatt t 281

<210> 10230

<211> 366

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-A10

<400> 10230

gggtccacgt cggtatccct acaaagactg ggggtgtccc ttgttttagtg ccagctatcc 60  
gcaatgaacg tctaaccaag gacttcaaag gccctaggaa ggtgcctaata tacacggcag 120  
acttacaacc cgcagcctgg atcgagagtt atgagatggc tatggaaactg tgtgacgccc 180  
ggataattag gctacagtaa tcccacgtta acgatgccac gtcaccccggt ttactgttga 240  
taaactctcg atagttcaga accgaaacaa attcaaaatt taaataaaaag caaataatag 300

aagtttataaa atattaaaac taaaatgttc ggagtgcgcc aaatagtcca tattaaatat 360  
 tgggtga 366

<210> 10231  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-003-Q1-E1-A12  
 <400> 10231

gggtccacct cctccggcct acacctgcga ctgttcatcc atgggctcct gttcatccag 60  
 cctccaccgg ctactgttca accagccctc caccggctac tgttcaacca accctccacg 120  
 gggtcctgtt catccaaccc cacaccaaga attgttcatc caaaccccg t caacaatgct 180  
 cactgttcat ccaggaagg aggcaacggt gtttgatcgg cttcagttag cagcagtagc 240  
 gaaggaatca cactcgggtt tagttaacag caagggatcg atcgatcgct cgggttcagt 300  
 aatgcgtatc ctgcagtga atcgctcggg ttcagttaga gccaacgcc tcacacacac 360  
 ccccgtagt acgagagaaa cgcacatcgc tcggccctg accagccacc gtaaccggga 420  
 actccccggt attttctcgc cctcgccttc 450

<210> 10232  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-003-Q1-E1-A3  
 <400> 10232

ggggccacgt cctctgcttc atcttctcc agggctcgta gatgtttttc tggaccaatg 60  
 aggtctccca ttagatacag agagggggccg ctggactacg agccattcac accatgtgat 120  
 tgccgtgaga agccaaaagc agccatgtgg atctcatgga ggcacgagaa tccaggtaga 180  
 agatacaaga catgttaccg ctgcaggagg ggaggttgtg agttctacga gtggcacgac 240  
 aatccgatcg cagatccttt cctcaaacag ctgggttatc atcttaggga ccaagtgtgg 300  
 ttatttgaga ggaggaacgc tgctctgcaa gatgctacga ggacagcaga aactgaagcg 360  
 gcaaattctat ctgcacaact ttcagaagct atggagtcgg gcatggacag ccgtgcaaaa 420

attatggtgg ctcttg

436

<210> 10233

<211> 386

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-A4

<400> 10233

ggggccactc tcttgacctg atcaacgtgg atttcactgg gacatgatgc ccgccgcctg 60  
cacacaagtt tgctatttct gcatggacta ccaatgctgt caacgttggtg cttgcctcag 120  
acaacgctac tgacaccaca ctacgaaaac tgcacgttaa ttctggtttc tttgcccaca 180  
ccgcatgcct acaaattgcg atcaagcaac cgtctgtggg tcataagaga tgactacctt 240  
tggtatccac ggcttgtcta ctactgtatc catgtctcaa tccacatggc aactcttttc 300  
aattctgctt aaacttacat tctctctctt acgtcctaac gttatttcat ttttttcctt 360  
tctgttcttt tccaactgat ttgcca 386

<210> 10234

<211> 339

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-A5

<400> 10234

gtcgacatcg atcatgatac gcaggtaag caggctatga ctgagatcaa tgcagctgca 60  
aagatgatgg tggctgcaag cgagaatgca gaggctgata agattgtcca gatcaagcgt 120  
gccgacggtt aagcagaggc caagtacctg tctggcctca gtatcgctcg ctacgcctac 180  
gccattgtgg atggcttgac ggacagcgtc ctgagcttct cagtcaatgt gcttggttagc 240  
actgcacacg acgtgatgga catggtgctg atcacgcact accttgctac taataaagac 300  
attggcgcggt cctccaagtc ctctgtcgtg cttatcccc 339

<210> 10235

<211> 354

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-B1

<400> 10235

tttatactat gcaacagtca ttttttttagt ataaaaaata acggagggag tataaaacaa 60  
ggggtacgac tatccttggt gcaatgctat gtctggctgg ctatatgcat gcatgcaatg 120  
tttcggcatg tcatgtatgg gccatggatg ggtcacactt acatcatcgt tgaactttct 180  
agtttgatgg atattagtagt gcagatgaga aatgaaagaa cacatacatt tgtccaagtc 240  
gttaatgatt gtgtggacct agcataatag actacaaatg tatttgtacc attggtattg 300  
cccattatag gagggaaact tctcaaacaa ctttacacaa gttgcacctt ttgt 354

<210> 10236

<211> 410

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-B12

<400> 10236

gggtcgacgc cgacggcgac agcaacgtca acttcgagga attcaagaag atgatgggag 60  
gcgaggaggag gagctaggct ggtaagggcc ggccatgagc aaacaatgct gcatctgcat 120  
gcctcgttga ggggttttgtt cctccatggt gcttaattta attttaatta atctcaaagt 180  
gaaaggctta ggctccccgt aatgcgaata ctaatgatga tgcgggtgaa gtgattaatt 240  
atgtaaactt aatcttctag tagtagtagt actactaatg atgatgggtg tactaagaaa 300  
tttggctctgg ggttggttgc aatgaattag aactcgtttg aaaccctttg ttttctgtt 360  
tggcactctt tgtttttctg tttgaaactc atgcaaaatc aataactata 410

<210> 10237

<211> 402

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-B4

<400> 10237

aggtagatt gtgacacagc tgaacctgtc agatgatgat gttgtccgtt tgctccattc 60  
tctctcttgc gcgaaatata cgattcttag caaagaacca gctggtggaa ctatttlogcc 120

caatgattct tttagattca attcacaatt tactgactgg atgagaagga tcaagatacc 180  
 octagctcct gttgatgaga agaaaaaggt tgtagaggac gttgacaagg accggaagta 240  
 tgcaattgat gcatcaattg tgcgtatcat gaagagtcgc aaagttatgg cccatacaca 300  
 gctagttgcg gaatgtgtgg agcagctcag ccgcatgttc aagcctgact tcagaacagt 360  
 caagaatatg attgaagatc tcatcacgat ggattacctg ga 402

<210> 10238  
 <211> 431  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-B5

<400> 10238

tcgacctatc agaggctatg tgattttaag ctagcgccga tatttattaa cacacagagg 60  
 cggcacaatt gagacagtgt tcacaaaatt tagaacgttt cactgaaaat tgtgaacatc 120  
 ttttaaatac cgaatacttt ttagattccg tgaacaattt tctagaacag aaacattttt 180  
 cgaaattcca aaacagtatt tggaacaaaa atcattttgt gaaatccatg aactttttgt 240  
 aatacgcgaa ctttttttaa atccatgact tttttaatat gcaaacatta tttgaatctg 300  
 tgaacaatat ttaaaacgag aacaattttt tgaaaacttg aataacctat aaaaaaactg 360  
 taacgcattt taaaatgaga aaatagtttg aaataccgaa aaaaaatcac acaagcaaat 420  
 tttgaaacta t 431

<210> 10239  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-B7

<400> 10239

attcgccggt cgactacagt caagatgatg tcttttttcc tggacaaaag aatcatggtg 60  
 cgtagatata ttgccttta ccttgatgta tgtttgagc tcgctctgtg tcatgctacc 120  
 cagtaccac tgctcgtcta gtatgtaagc cgctattctt tgttccagtc ctgcactgat 180  
 agtctgatac cactatcttg ggctctaaac attacaggat gctccgacga tcatcagaat 240

tcccttgaga gccatacttg acatcgtgct agcagagctg ggaatcccag aggccgaata 300  
 ccgtcgcgag atatgcgacg ataacaagat ctgcgtcacc gtgcttttcg acgcctctac 360  
 aatcaaagga gccccgccc atatgtcgat atccggaaca tattccacgg acgatgaagt 420  
 ggcagaggac acagctgctc 440

<210> 10240  
 <211> 344  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-003-Q1-E1-C10  
 <400> 10240

cttctacatg agtgccaaga ttttgggcaa cgctggggac cggcaagtcg cgagttcata 60  
 cctcgaaggc gtcattctag tgaaccccag ataaggataa cttcctcgtg ccttgctttc 120  
 ccgagtaagt catccctca ccggcctgta acatatgatt tcttagactt cgatcgttcc 180  
 tttgtttcta acattctgtg ttttgtgcag tgacacacat tgcacactca tcctcttaag 240  
 cccgaactat tccatggcca cgtatttcca ctgagaccgt caatctaaga aagactacac 300  
 aaatatcaag aaatttcttg atgatgttct cccccggtat gcca 344

<210> 10241  
 <211> 206  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-003-Q1-E1-C11  
 <400> 10241

gggtcgacct tctagataga ttggatatcg tacggacaca gatatatggc cctatcgaga 60  
 tgatccagat attagcaatt agagcacaag tggaggacat tgaaattgat gaggacagtc 120  
 ttgcatttct aggacaggtt gggcagcaga catctttgag acatgctatt catctgatgt 180  
 cacctgctat tgtagttgcg aaggct 206

<210> 10242  
 <211> 330  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB31-003-Q1-E1-C12

<400> 10242

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atgattttga atataaggggt aaccttaaaa ccaatgacaa tcaataatgt gggataaaga 120  
tggttaaagca agaatggggc gcaaccagac gtgacacgag cattttgttt tcccatggcc 180  
tgagacaatg gggcatttat gtctacgaac aactccatgc tcaggacaga cacaacatgg 240  
ggccaccatt agtgттаата atccccaaaag tgaatgagtc atggatgacg tttttacttg 300  
aacaaaccat aagtcgcaa ccacaaagaa 330

<210> 10243

<211> 242

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-C8

<400> 10243

ttcgccggtc cacaagcccg acgccaacta ggatatggat gaacaattga gctttcttgg 60  
atgttgacaa agctctttca gaatctcaga aatactgctg tgtactttcc ttgtatcaat 120  
gggaaacagg ggcttctgtt ttgttttttg gtttcccaac gtcagattaa taatatatag 180  
ataacctaaa tcatacaaaa tgtggttccc atgcaaatta tttatccttt cctaccttga 240  
tt 242

<210> 10244

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-C9

<400> 10244

gggtccactc ttacttgga cctcaggctc aggggcggtg ctatgatcaa ggttaagact 60  
ctcactggga aggagatcga aatcgacatt gagcccaccg acacgattga taggatcaag 120  
gagcgtgttg aggagaaaga aggcattcct cctgtgcagc aaaggctgat ttatgctggt 180  
aagcagcttg cagatgacaa gactgccaaag gactacaaca tcgaagggtg ctcggtcctc 240

catcttgtcc ttgctctgag ggggtggttac tagttaagct gtaatggaaa cgcttgcgtc 300  
ctgagagaag tgaccattgg tggcatggaa cctgtgttgc aaagagataa taacaaacta 360  
gctttgctta gtgggagggg ctgtcttcca atgtagccgc ctatatgatt tgacagaact 420  
actcgcaagt taaaaaaagg gtttgctt 448

<210> 10245  
<211> 440  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-003-Q1-E1-D10  
<400> 10245

gggtccactt ggccatggtt cttccgagca cgcataag tggaagacga acaattgggc 60  
ggcacggtcc ccttgttcaa gtcctgtggt ggaaggaagt aatttgcaac agctacgttg 120  
ttgtcaagga cagggatatc acctgtaaga gtctgaatg caaactccag gcatgggtct 180  
gaccagatac ttcgaaacag cgacgacagg gaatatccgg gcatagcatc agctgttcca 240  
acaagtccgt tcggttgccg cggagcatcc acattctggc atccaacgtc tgttaacgag 300  
catgcagcag atgctcctag tatctgttca ggagctgaag gatacttgtc ttcagcattt 360  
ccagaagtac ttggggcatg tgcaacatct ttattctgaa tttacggaga ggaaattgcc 420  
tttgacttag gaatttttga 440

<210> 10246  
<211> 422  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-003-Q1-E1-D12  
<400> 10246

ggtcgagact ggcgcgggg gcaacaacgc cgccaagctg cacgagctcg acgagatgaa 60  
gcgcgctctc aaggagatgg aggaggaggc cgctgccctc cgcgagggtgc aggccaaggt 120  
cgccaaggag atgcaaggcg gagatcctaa cgcgaccaca tctgaagcaa aagaagagat 180  
ggattctcgt tctgtttttt ttggaaatgt tgactatgca tgcaactccag aagaagtgca 240  
gcagcatttt aattcctgcg gaaccgtcaa ccgagtgact atcctgactg acaagtttgg 300

gcagcctaaa ggttttgctt atgttgaatt tgttgaagca gaagctatcc aggaagctgt 360  
 caagctgagt gagtcaagagc ttcatgggtcg gcaaatcaag gtaccaccga accgaactaa 420  
 cg 422

<210> 10247  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-D3

<400> 10247

ggtccgagat taccgggtcc acccctgggg gctacacaac attgctcaaa tccacatgat 60  
 tatatttaca aagtacctgc tcattattgc ataatgacc gacccttggg ggctacacta 120  
 gttgaagttt tgagtataag acaattacaa gtcccagggt gctgcaagca tgacaaccg 180  
 gcacttggga gctacataat atggagtatt cagggttttac taagtgactg ggatgaacaa 240  
 catgggtttc ttcttaagtg gcagtattta tgttgaagca agtcttaagc catcactttg 300  
 ttctactcaa gacttggggg ctacaggtat tataatatta tcgaagaaat attttttcag 360  
 actctgtttt gagcaaacca gattgaaccg gtgtctgcaa caatcatgcc ccggaattat 420  
 cagtttttat aaccgaaaa tggtgg 446

<210> 10248  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-D4

<400> 10248

ggtccgagat agcgggtcga gacgagagtt agcgatctac agctgggtcg gtggactggt 60  
 ggtgacacgg gcggggccctc tactttattt gccgaatcca atcgatcatg ggcgggccctc 120  
 ttcgttcaca gtctttcttt cctttcgaat ccaattgttc caatctgacc aaatagcaat 180  
 tcattgaaat cattcgggtc acctcttttt taagcacttg accaagccta tttctataga 240  
 aaaggacagg aatctattga ctttgagtct gtctcctact acgaaattgg aactgaatac 300  
 aggatggcaa tagtgagaaa aaaaatcccc tcgtactacg tcattattta ttcgattttc 360

cctggtaagt gctccagatg cagttgcttt agttgacgta ctgagtggga actaattata 420  
 tgtgtccttg aataccagag 440

<210> 10249  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-D6

<400> 10249

agttgaccac tgcaggatgc acggatgcgg agaaggtgtg ttttgccgca catcagctag 60  
 atggacccgc agcatcatgg tgggagaatt tcacaaccac ttatcctatc gacactgtca 120  
 catgggacca gtttcagcag gctttccgta ctgcccattgt tccagcagga gctatggcca 180  
 tgaagaatcg tgagtttcac aacttacacc aatgaggacg tacagttggc cagtatgtgg 240  
 atgtcttttag taagctagca cgttatgcc cagatgacgt tgctacagat gcagctaagc 300  
 aggagaagtt tctggaagga ctgaatgatg agctgagcat gcagttgatg gtagcaacct 360  
 tcaacaacta ccaggagttg gtaaggatct ct 392

<210> 10250  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-D9

<400> 10250

ggccggtccg atattacggg tccagaccac tggccaactt gtctatgagc ttggaggcat 60  
 tgacaggcgt gtgatcgaga gggtcgaaga tgaatcagct gagatgaaga aatgtggcaa 120  
 gtacgcatgg gtgcttgaca agctgaagtc tgagcgtgag aggggtatcg ccattgatat 180  
 tgccctgcgg aaagttcgag accaccaagt acaacttcag tgccttgac atcactgggt 240  
 acctcctatg gcgactgtgc ggtgctcatc attgattcct ccactgggtgg ttttgaggct 300  
 ggtatttcca aggggtggcct gactctggag catgtcctcc ttgccttaac taccggagtg 360  
 gagcacatga tctgctgctg caacaaagta aatgttttga cacatcatgc ttgtttttac 420

<210> 10251

<211> 279  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-E10

<400> 10251

cggggtcgagg cgagggatag atgatgatga caggcgaatg aacagtcagg tgggtgcact 60  
ttatccatcc tgccaccata ttacgttacg tatacatact ctatattgac tgctgagttc 120  
agaatcgagc ttgtcaaagt tgacagtaca gtatgagatt ttgactaagc tgaagtcctg 180  
cgggggcaag tggcaatctt gcatgtcctc aggatgtctc cactattgca tatgggtcca 240  
ggccccagtc aatggctaca tccacatatg catgcatga 279

<210> 10252  
<211> 401  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-E11

<400> 10252

cggggtccacc aggacaccct catcgacctc atgctcgctg ccaattacct cgacatgcag 60  
agcctgctcg acctgacgtg caagacgggtg gcggaccaga tcaggggcag gaccctcgag 120  
gagatccgca agaagttcaa catccgcaac gactacacca aggatgagga gcaggaggtc 180  
cgcagggaga actcgtgggc attcaattag aagccgtcta gctatttgct tgtccatttg 240  
atcatcactg cgtaggctat ccatcggtcg atccacggct atgatgggcc tggttacctg 300  
atcatatgcy ctttctcact cttataaagc aatcaacggg gccgaaatgc ctacctggat 360  
gtacaaaagg ggccgccaga cggcgaaaag aaaagcggcc c 401

<210> 10253  
<211> 444  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-E12

<400> 10253

cggggtccagc ctgctaccca atgcatgtcg ttaaaaagca ttaattgtaa atttttttac 60

gcctagactt agatgaataa ggatctctat ttaatagaga tatttatatt tgtccatacc 120  
 tttttgtaat gagtttataa tcttaaaata aaatatgcta ctgagttggg taccttgaat 180  
 gtgggtgcgca ccgtgagtaa tggaatacat agttccagtt ccaaaaatgg gaatccacat 240  
 acttatccca tatttttttg atagaattct tttaactata ctcttttaac aagtagacga 300  
 gatataattaa cgatctatct aaatgagcga tgtatacttc tgaaaatata ttcataatctt 360  
 gcacgtaatt ttcacataat atctacaatc taagataatt ataacataat tattgtcaac 420  
 aaaaagttaa gtacaaagta tttc 444

<210> 10254  
 <211> 385  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-E2

<400> 10254

cggtccgaaa taccgggtcg agttccacca aagcgataaa catcatctca tcgaaagacg 60  
 ggacaccttt gcctctatca agtgggtatca gatttccagg ttgctcgggtg agattttaca 120  
 gtttttcgta gtttagatcg agtctgttct tcatacctac agtccacgaa aaagccacaa 180  
 aaaaaattag ggtagttca tcatatccga accaatctga gcctttgcat aatcttttta 240  
 gggtttttgc tttgttgaat ttgcggttgc atcgtcgtgt caagttgctg gtcttagagt 300  
 ctagtctttt agagtttcga gttctgggcc taagttgtca cgccgccgcc gcaccatcat 360  
 catcggcttg ccatctacca acatt 385

<210> 10255  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-003-Q1-E1-E4

<400> 10255

ggtcggaat aacgggtcga cctgaaggca gacaaaaaaa agatcaaggc tgccgtgaaa 60  
 aagatgtacg acatccaggc caagaagggt aacaccctga tcaggcctga tggcaagaag 120  
 aaggcgtacg tgaagctgac accagactat gatgctcttg acgtggccaa caagatcggc 180

atcatataag tcagagggac ggtcctgcag taggcgcttg tgcgtgggt tcttatgtta 240  
 ttggagtttt gtagttgtta cttagcanag gggctcagtg gctccattgc ctaccatata 300  
 gccgcgcact ttcataaatt tgatgcaatc gaagtgaatt gtgttgatgc taatttgaag 360  
 ctttgcgttt ggtcttaccg tattgggttg tatctttacc atccttcgac ttaccttatt 420  
 tcctgt 426

<210> 10256  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-F10

<400> 10256

gggtccacgt tgcattggta tgtgtcagta gggttttcaa gaaaatatgt tcttatgtca 60  
 cctccataag tgatatggag aagctagagg agaaaacgct gagacgttgt gcactcttga 120  
 ggccatattt ctgtcatcat tttttgatct tatggttcat cttttcaacc caagtgaggc 180  
 taggagggcc aataaagtac aacaacatgt acccgataga aagatcatcc atgaacctat 240  
 tttcttgggtg tcctatgggt tcttccttat ctcaaaaata attcaatata tgttatgtat 300  
 atattatata ggaatagtat gaggctaaag gggtttggtc gtacccaaaag ccaccttgag 360  
 ggggtcaattg cagaggggta tcactttgac gagtccatta cattctgctc gcattattta 420  
 caaggatgtg agactagatt taacaaaaat g 451

<210> 10257  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-F12

<400> 10257

gggtccacga tgcataatgta gtatgacgag gtggccttcc attgccctag aggcgctggg 60  
 tcttggtcgt ctctgcatt ggcgtccata ccgtcgatgt cttcagagtc gaagtcgagc 120  
 atgccagtta aatcatcgac agtggctacg aagtgaagtgg tgggtgggct ttgaatttct 180  
 ttgtcgtccg catcccaacc ttgctgacca tagtccggcc agggctctcc taataaggag 240

agagacttta gtgaattcag aatgtcgccg aagggcgagt gttgaaagat gtctgcggcg 300  
gcgaactcca tgatcggcgc ccaattgggt tcaatcgga ggggcgtgga aggttcggag 360  
tccggaaagg agtccggcac cttggagtcg cgagcttcgc aaaagacaag actggtgttc 420  
g 421

<210> 10258  
<211> 179  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-003-Q1-E1-F2  
<400> 10258

ggtcgagtc atccgtcaga tgcaaagcac ccagtagatg agaggcagga agatacatgg 60  
gagagtgggt tgccccagac gagtgtgcaa tgccctcttca tccggacaata actttttgct 120  
aaggaagcag gtcagctcaa agccatttat tggatgtgtc cagatggtgg gctcacatt 179

<210> 10259  
<211> 417  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-003-Q1-E1-F3  
<400> 10259

cgggtccgaga taacgggtcg acatcgagcc agatgcgcat gtcaagcagg cgatgaatga 60  
gatcaatgca gctgcaagga tgaggggtggc tgcaaacgag aaggcggagg ctgagaagat 120  
tgtccagatc aagcgtgccg aggggtgaagc agaggccaag tacctgtctg gcctcggat 180  
cgccccgccag cgccaggcca ttgtggatgg cctgaggac agcgtcctgg gcttctcagt 240  
caatgtgcct ggcaccactg caaaggatgt gatggacatg gtgctgatca cccagtactt 300  
cgatactatg aaagagattg gcgcgtcctc caagtcctcg gcggtgttca tccccatgg 360  
ccctggtgcg gtgcgcgaca tcgccacgca gattcgtgac ggtcttcttc aaagcca 417

<210> 10260  
<211> 318  
<212> DNA  
<213> Triticum aestivum



<223> Clone ID: LIB31-003-Q1-E1-F9

<400> 10260

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ccgagcctga aggtccctcc ttggcccatg agatgagata tcctgggtgga gactgcacct 120  
ctgacatatg gatctaggag gaaggggtgta ggacacaggc agctggagat ccatgggtgtt 180  
gagctcactg taattaaaat ggtctcttcc ccgcctgcgg tgttgatgt gatgtggtat 240  
caattggaat aagttcctga tagaacctct gacattggct tcatgggagc tttgggcccg 300  
aataagagtt gcctctga 318

<210> 10261

<211> 188

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-G12

<400> 10261

gtcactgatt catcaaagt ggcgcctcc tgtgacgaga ttcgcctgga tcgatctgga 60  
gccccatgca cgccactggt ggcagatcca tcatagatcg ccgtacgcgc acgctaagga 120  
caccaccagg cacgggtcta tcgttgagga tgatgggtccc tgtctagtga atgattattt 180  
cctccagg 188

<210> 10262

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-G3

<400> 10262

ggtcgaaat taacgggtcc actacctgat ccgcaccaa tgggtgcctt gcctcgagtt 60  
cagcaaggtt gggttcatct tccgtgagca caacgcatcc cctgggtact acgatggccg 120  
gtactggaca atgtggaagc tgcctatgtt cgggtgcacc gacgccacac aggtgatcaa 180  
cgaggtggaa gaggtcaaga aggagtaccc tgacgcgtac gtccgcatca tcgggttcga 240  
caacatgcgc caggtgcagt gcgtcagctg catcgccttc aagccaccgg gctgcgagga 300

gtccggcaag gcctaaacag ctcaatcacc acgggccaca tataaagtgc cattgcggtt 360  
 ttgtcaactc tgacattgct ttgggttttc cttctccatt tatctttctt gtttgttcct 420  
 aagaatatgt gtatgtccat gttcatgta 449

<210> 10263  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-003-Q1-E1-H10  
 <400> 10263

gggtccacaa cgccgaggaa gagaggaagg cgatcatgtg ggaagagacg aacgggctgg 60  
 tgagcgagta cgcgaagatc catcttggac agcactcgtc ctgggaaccc gcggttcctc 120  
 cccttggatc catggtcaag ggaagcctca gtccgttatg acgatctggc gaagtaattt 180  
 cgctgatatt caagctggac gacaatcccc cttggaaccc cccgtttctc ctcttgaagt 240  
 caagggccaa caagaacctc tagccctttg ttaaagctgg tgaccgcacc atcgaggat 300  
 tgctatcctt ggatggtaat tgtagtgaa ttgtaggaat tcttttcttt gccggagcca 360  
 taaggaggtg gtgttcgttc aatgggggct aaaatttt 398

<210> 10264  
 <211> 243  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-003-Q1-E1-H11  
 <400> 10264

atgaatagca tactctagcc tgccgaggaa gtgacagata aagtacactc tctcgatgga 60  
 ttttgggtgtg gggataacat gccctttatt acggagcctg tgggggactt cagcagtcag 120  
 gtacctcgcc ttccagagct tcgtgataac ctctcagtg accgaggagg ctgcccacct 180  
 accttgggag atggatcccg acataactag aggggtccgt aacaatggaa gaaatcta 240  
 cct 243

<210> 10265  
 <211> 429

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-003-Q1-E1-H4  
  
 <400> 10265  
  
 gggtcgactt ctcgtggttg ccgatgcgca gaactgcatg ggaggtttga ggagatcacg 60  
 ttccaagctg ccgatgaaga gcaatctggt ttgcatgact cagggggcag ctctgatgat 120  
 ggatgcgcgc aaaaggagca acatgtcaaa gacaatgaac ccatatgcct gaatggggtt 180  
 ccaaagatgg gtagaagagg tctttctgat cggctttgct tcagttcttt ccaggagcgg 240  
 tcgtgcccaa ccgagaatta tgagagcgat gccgatcatc agcctaaggg gttcgacata 300  
 aagcatgaag tgaagatggc caagtacaaa tcacgggaaa tgggacacct gaagagagct 360  
 attcatccat ctctggactt cgacaacacc acgaatggag caagcatgac gaagcctaca 420  
 ctgagcaag 429

<210> 10266  
 <211> 244  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-A2

<400> 10266  
  
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 tgcagatcat gaggatggaa gtgtctcagc actccaagta cttcagtgag ttctgcggga 120  
 agtttgctgt ggtcaggaaa gcagttggaa tttggggatg caaggactgt gggaagggtga 180  
 aggctgtcgg tgcttacacc atgaacactg ccagtacagt cacctgtcag gagcaccatc 240  
 cgtc 244

<210> 10267  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-A6

<400> 10267  
  
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gtaataagta gatgatgggt tgctagagt atagaagctt aaaccctagt ttatgcgttg 120  
 cttcgtaagg ggctgatttg gatccatatg ttccacgcta tggtaggtt taccttaata 180  
 cttcttttgt acttgccgat gcttgcaata ggagttaatc ataagtggga tgcttgcca 240  
 agtaagtaca tgtagcgacc agacctcaaa tggctctgtgc tgctgtgcac cagtgtcatc 300  
 cctggatcag taatgctgac acgcacacta caaatggagg atttataaca gattagcaat 360  
 cacacacttt ttacatcgaa taactccgaa gagtttaagt atgataaata tggcttaagg 420  
 ccatctaata ac 432

<210> 10268  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-A7

<400> 10268

ggtcgacagc cataagaggg agctagtcaa attgttttgc atatgtcaca gtagaatgga 60  
 ggatatcatt ccaaaagatt ctctgtgag gcttgtagca ttcaatctgg gctaccttcc 120  
 aggaggagat aaacaaataa tcacagtacc tgagacaact gagctggcac tacaagctgc 180  
 cagcagaatt gttggctcag ggggactcat aagtgtcctt gtctacattg ggcatctggg 240  
 tggaagggat gaactcgata ttgttgaatc atttgcgta agcttgctg ctgatacatg 300  
 ggtgagctgc aagtttgaaa tgattaacag gccattgct ccagtactag ttctctaca 360  
 caaaagatga tcacaatccc actgaagctc cacaagtttg ggactcgcta ttctggattt 420  
 ccggttgatg aatgaaattg cgc 443

<210> 10269  
 <211> 340  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-B3

<400> 10269

aggtccaatc tagacaccat ctccgatggg gttcaccacc tccattgggtg cctctccgat 60  
 gatgtgtgag tagttctttg tagatcttcg ggtccgtagt tagtagctag atggctttct 120

ctctctcact gaattctcaa tacgatggtc tcttggagat ccatatgac taactctttt 180  
 gtgggtgtctt tgttgggac tgatgaactt tgagtttatg atcagtcata tctttttata 240  
 tccatgaaag ttatttgagt ttctttgac tcttatatgc atgatctctt atagcctcgt 300  
 atttcttctc cgatatattg gttttgtgtg gccaaactga 340

<210> 10270  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-004-Q1-E1-B4  
 <400> 10270

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 gtaggaaaat tttgaatttc tgctacgttc cccaacagtc gtctcccgac cagttaggtc 120  
 ggaaagagga ccccatgac ggttcgcgaa tgggccactt caggcagccc atgacgtata 180  
 caaggaagat tccacaagac ttagcgcgca agacgacgac tcttctaaac ctaggcctc 240  
 tgatgcatta tataaaccga gactacgcta gtcaatacga catcttatat tcattacaac 300  
 aatatcgtgg tagatatcgg tactatacta tccccaatat atgaatataa tctcgaactt 360  
 gggtaaaatc atgtgtccat gttgctatcg ctacaagacg cctaacttat gaccct 416

<210> 10271  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-004-Q1-E1-B6  
 <400> 10271

ttcgcgggtc gacaccttta atcgaatttt tcagtacaac attgctgtgg ctgctaccac 60  
 ggacaagata cttggtgcga ggaatcccgat gatccccatc cgcgagctga gggtcagggt 120  
 ctgtttgagg catgatgagt gtctctccat cagccaagct gttgcccgc ccatggcaac 180  
 ccacaagctc gatgtcgtg agtttgcgt cctcacggag aagactagtt ggagatgcac 240  
 tcaacatgat ctctctcct ttgccaaagc gttcaatact tggtttggtg attgtccagt 300  
 tgtgtttgct ggtctcacgc acctgtggct gcggaatttg aggtttgggt aactggacat 360

ccacaacatc ctcaacacct gcaagcgctt ggaatctctg cgtctcaccc attgtgaacc 420  
 aggggtccgc tccgtgcttc aagtacagca tgc 453

<210> 10272  
 <211> 368  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-B7

<400> 10272

ggtccacgtg gaggtggcag atcagaggag ccggcgaaaa ggtcggccag ggaacgggaa 60  
 tagcagctcc accgtctcgt cctcccaaatt tctcagagcg gagctggagt aatgccgtct 120  
 gcgtcggcgt cggcgctcgag ccgtcaaggg tgcgggatgt gggatgtctg cccatccgca 180  
 actactggaa gaacacgctg gcagcgagcg tctccaagag caagggagga gatgacgttg 240  
 cagctcaagg gggccgcact acctgaaggt gagcatggat ggcgcccatt tttcccatc 300  
 aaatttgtag aaattcgttg cagagcaagg gacttttgtg ttttaatcag tgggtgaatt 360  
 ttttgcaa 368

<210> 10273  
 <211> 336  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-C1

<400> 10273

ggggcatcac gtctgcgaca agtataccga agatgattct gcatctacta ctattactcc 60  
 acacattgac cgctatccat catgcatcta cagtattaag ttcataagaa tagagtaacg 120  
 cattaggcaa gatgacatga tgtacaggga taaactcaat caatatgata taaaccccat 180  
 ctttttatcc tcgatggaaa caatacaata cgtgccttac taccgctgtt gtcacaagta 240  
 aaggacaccg caagattgaa cccaaagcta agcacttctc ccattttacaa gaaagatcaa 300  
 tctagtaagc caaaccaaac tgataattcg aagaga 336

<210> 10274  
 <211> 183

<212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-004-Q1-E1-C10  
  
 <400> 10274  
  
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 atggcttgct caaaacacag agtgacctca actaacaaga gtcccaaggg gatTTTTgtt 120  
 tgcaatattt tgatttgatt tgcataaagc atgggactgg gcatcccggg gaacaaccac 180  
 ttt 183

<210> 10275  
 <211> 312  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-004-Q1-E1-C3  
  
 <400> 10275  
  
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 gcctgatggc aagaagaagg cgtacgtgaa gctgacacca gactatgatg ctcttgacgt 120  
 ggccaacagg atcggcattca tataagtcag agggacgggc ctgcagtagg cgcatgtgtc 180  
 gtggtttcgt aagtgagtgg agttttgtac ttgttactta gcaaaggggc tcaatggctc 240  
 cattgectac catatcgccg cgcaacttca tgaatttgat gcaatcgaaa tgacctgtgt 300  
 tgatacacgt gg 312

<210> 10276  
 <211> 365  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-004-Q1-E1-C4  
  
 <400> 10276  
  
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 ctatcaagtg gtatcagatt tccaggttgc tcggtgagat ttacagtat ttcgtagttt 120  
 agatcgagtc tgttcttcag acctacagtc cacgaaaaag ccacaaggaa aagtttaggg 180  
 ttagttcatc atatccgaag caatctgagc ctttgcataa gctttttagg gttttgcttt 240

gttgaagttg cggttgcatc gtcgtgtcta gttgctgggc ttagagtcta gtctttttaga 300  
 gtttcgagtt ctggtcataa gttgtcatgc cgccgccgca ccatcatcat cggccctgcc 360  
 atcta 365

<210> 10277  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-004-Q1-E1-C7  
 <400> 10277

ttcccgggtc cacctatcat cactgactat ggtgttgcca cgacaatttg ttcaagtga 60  
 accttcagtt tgctaaagca tctgcaaag agaacaagaa atcgcttggg ttagacttca 120  
 acccaggtcc atctgtcct cgggatgatg gcacccatga tgctgaacc aatattatcg 180  
 ggcccttcta caaccttgaa ggtctcatat cacacattgt tgttcagggg gcagccgtgg 240  
 agcactctgc agatgacact gattctgatg aagcgcctgc tcctcccaag ccatagaaac 300  
 agaagaaaca aaggcttcaa aaccctctc tgcacaaaaa gcttcgcatg ttaagcctct 360  
 agctactgca cctcctggaa gcagtgtgca gtccgaagat ctctcatgca tctc 414

<210> 10278  
 <211> 390  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-004-Q1-E1-D3  
 <400> 10278

ggtcagacc ctacctctac atctatcttc gggattagtt ttagacctga ataattgtta 60  
 tttggtgcca gcgttaagca tgaacattat atctggatct tgtttgatgc aagacggtta 120  
 ttcatttaaa tcagagaata atggttggtc tatttatatg agtaatatat tttatggtca 180  
 tgcacccttg aagagtggtc tatttttatt gaatctcgat agtagtgata cacatattca 240  
 taatgttgaa gccaaaagat gcagagttga taatgatagt gcaacttatt tgtggcactg 300  
 ccgtttgggt catattagtc taaagcgcac gaagaaactc cataccgatg gacttctgga 360  
 atcacttgag tatgaaccac ttggtacttg 390



<210> 10279  
 <211> 332  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-D4

<400> 10279

cgccatcaag cttacgccgc agaatttgct gcccccatgc cacctccggg gcctggcttg 60  
 catactcatg accagcagtc gaggaagaca aggcgggtgct ggtcgccgga gcttcaccgg 120  
 cactttgttg cgccttgca ccaactcggg ggccctcaag gtacttgagc cataacttag 180  
 ccaaagtcta gctgtatgtg ctactctagt tggcacattc gaaaaatatt ggagtcctta 240  
 caaaaatgtt ccacgatgat tgcagttgcc actccagagc aagtcacgga gattatgaca 300  
 cttgatggcc tcaccaacta tgaagtgaaa ag 332

<210> 10280  
 <211> 286  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-D6

<400> 10280

gggtccacag acaatttgga aggataggat cgatgctcac agcagattga tgaggcacta 60  
 ttttgtggag aatctgacat accccgagtc gtacttttgt cgccggttta ggatgagcac 120  
 tgagttgttc aggcgcatta cagagaaact aacgagccat gaccggtttt ttcagcaaag 180  
 gaggaatgcc gccagagagc tcgggcataa cacctttcag aaggtgacag ccgctttgcy 240  
 tatgttggca tacggtatcc cggctgatct agttgatgat cacttg 286

<210> 10281  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-E1

<400> 10281

gggtccagac tgcattagaa acgtatcctt cactgccacc acagtcgata taaattagct 60

gtccggcaga ctttccaatg aatccggaga aacacggatt aacactttct acaactggta 120  
gcgggatgat tctccatctt agcccttctg catcaactat tgccaacca aactgaccta 180  
ccagcaagtg gtgtatagct aacaaaatta tgtcaaggag taaggatata accgtaggta 240  
attactagta agagatagta gaacagttca atgggtatgc aaggttttag taggtgatat 300  
gcatcacatt attcagcggg acacacattg acaatagaag ttacatgcta agagcagtat 360  
ataaccaatc gatgcagcaa aagtagttca acc 393

<210> 10282  
<211> 301  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-E11

<400> 10282

cgcgccggac ctcggaacgc actaaagtga gtcgtactac ttctttgttg atttcgggac 60  
cgagcctgaa ggtccctcct tggcccatga gatgagatat cctggtggag actgcacctc 120  
tgacatatgg atctaggagg aagggtgtac gacacaggca gctggagatc catggtgttg 180  
agctcactgt aattaaatg gtctcgtccc cgctgcggt gttggctgtg atgtggtatc 240  
aagtgggcaa acttcctgac agaacctctg acattggctt catgggatct ttgggcccta 300  
a 301

<210> 10283  
<211> 421  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-E2

<400> 10283

cgggtcgagg tccatcaata ttggttgtag atgtgagttg ttgctgccat ggaggcagat 60  
acttctgggc ctcttctctc tccgacactg tgtgcacgtg ctcatcgcct ttctagccag 120  
aaagattgaa cacgtttatt tctagaggct ataaagtttt tcttcatccg aattgatcta 180  
tggcattgga ggacacgtgg tttcccaatc cctgcaaaaa acgatatcta ataacctcct 240  
ccttgacgat ctgccatgga gcttttaaaa aaggactact atgctgctaa taacaaaaat 300

taaattgcat taggattcat gaactactta ttttcatctt atatatgctg accttctcct 360  
tcttttagtg aaaaatcatg catgtgccct tctgtgtata ttactgttac ctttcataca 420  
c 421

<210> 10284  
<211> 434  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-004-Q1-E1-E4  
<400> 10284

gggtccagtc tgggtgagaa tggacattca cttggaaaga tgggtggaca gattaatgga 60  
cacttgaatt atggatttca tgggggttga gctttcaatc cacattccct tctgacttt 120  
cgcaacggcc aaagtaatgg tatttcttgc aacttaggca caatatacc cattggagtt 180  
aagagcaact ctagaactgc tgaaggaatg gagagcagac atctttacaa agttggttct 240  
gctaaccttg gtggtcattc ttctggatcat accgaagcac cggggttttc aagaactgga 300  
agctgcccc ttcatggcca ccaagtagcg tggataaatt canataactc gcataccat 360  
acctctctc gcatgctatg gacgaactca ggatcattta tcaataatat accatctcga 420  
cctcccatgc aagc 434

<210> 10285  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-004-Q1-E1-E6  
<400> 10285

ttcccgggtc cacaaaagtg gagccaaaca ggcccagacc aacaacatga tacacaaaaa 60  
caaacaatga caagcgaggc gggagataga gcgcttacac gaaaattatg aaactaaatc 120  
aaaagaatga caaacttaga cgagacatcg tttaaaatag ttgtggattt aaaaatacaa 180  
tatgaaatta taaaaatcaa ggattttacg accaaaaaag aaacaaaata cagaagttta 240  
aaacccaaga gaaaaattta gaaaaaacag acaagaaaaa aaacagaata agtgagtata 300

gagagtggcg aaccaggaaa tacttgaaaa aaatgctcgc ctctgacact tccaattctt 360  
 tcccgaagca taaagacaaa atatgcctac tcccacaaaca tacatagaca ataaagacca 420  
 gcc 423

<210> 10286  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-E7

<400> 10286

ggtccacgga gaagaaacag ttgaacacga tgcgggagat caaggtgcag aagctcgtcc 60  
 tcaacatctc cgtcggcgag agcggcgatc gcctcactcg agctgccaaag gtgttgagac 120  
 agctgagcgg gcagtcgcca gttttctcca aggcgaggta cactgtcagg tctttcggca 180  
 ttcgtcgtaa tgagaagatt gcctgctatg tgacgatcag gggtgagaag gcaatgcagc 240  
 ttctcgagag tgggctgaag gtgaaggagt acgagctctt gaggaggaac ttcagtgaca 300  
 ctggttgctt tgggtttggt attcatgagc acattgatct tggcatgaag tatgacccat 360  
 caaccggcat ctatggtatg gacttcctcg tggttctgga acgagctgga ta 412

<210> 10287  
 <211> 227  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-F1

<400> 10287

gaatggcaga aaacagcaat gtaaaatgac agactacgtg gtgacgtcat ttacgccttc 60  
 agttccatca tgtgcttgct gctgggcctc gcattacaaa atcgcttgac aatatcatac 120  
 agttggattt gttccttcgt agccctgact tcaggctcgt aatcctccgc ggagggtcgg 180  
 ttaaactaag ctctgctgcc ctcaaagaac caaggggtgg cactcct 227

<210> 10288  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-F2

<400> 10288

ttgaataaac ggtcgatttc cgattaatct ctattcctcg gctgactgag acgctaacaa 60  
taagcgatat cctcaatatt gacgtaaata aataaccgca ccaaaaaaca ggaacgggtg 120  
tggcctatgg cgtcgcccca ttacttgccg cccgcgggca gcatatagga ttggaccgta 180  
ttaaaggcat tttctatttg acgcttcagg cgcccattac tgtgtatgtt gcaaacaggc 240  
acacaccctc ctctgcgctg cgctggccca tttagcctac ccaaacttgc gactaagtcc 300  
atcaaaccgg agatctcctt gtattcgata aatggcacta accaccaga cccaatgcc 360  
tattgtgac acttctcctt tttcttcctt ttcttccttt tttccttatt tttttacttt 420  
tactttacat tttc 434

<210> 10289

<211> 450

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-F3

<400> 10289

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aaaatgatat agcatgaaag aatcatgtct actaagtaaa aagagaaaga actaaaacgt 120  
aaagcggatc atgtatagaa agtacgaaga aggtgaatgg taaaaaagag caaggcaaaa 180  
tgagagatta tgtggtgagg tcatttacgc tttcagttcc ttcattgtgct tgctgctggc 240  
cctcgcatta caaaatcgct tgacaatata atacagttgg atttgttcct tcgtggccct 300  
gacttcaggc tcgtagtctt ccgcgggggg tgggtgaact accctctgct gcctcacaga 360  
accaggggtg gcactcctaa tggatcctc agataccgta tctgcaggca cattgaaact 420  
tgattgccc tgacctcgtg aggacctcct 450

<210> 10290

<211> 273

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-F4

<400> 10290

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gtattgcttg tttttgctaa caagcaagat cttcccaatg ccatgaatgc tgctgaaata 120  
acagataagc ttggtccaaa acccctgcgt tagccacact ggtatattca aagtgccttg 180  
cccaaaagtg gggaagggtcc gtatgaaggg ttggactggc tccccaacaa tatacccagc 240  
aagtcctgaa agcttccaat ggattggcaa agc 273

<210> 10291

<211> 358

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-F5

<400> 10291

cgcaactcac taaagtgagt cgtagtaccg tcgagacaca gctgtacgca aatgatatac 60  
catgaaagaa tcatgtccac taactacaac ggagaaagaa ctacaaccta aagcggatca 120  
tgtatagaaa gtacgaagaa ggtgaatggt aaaaaagagc aatgcaaaat gagagattat 180  
gtggtgaggt catttacgct ttcagttcct tcatgtgctt gccgctggcc ctgcattac 240  
aaaatcgctt gacaatatca tacagttgga gttgttcctt cgtggccctg acttcaggct 300  
cgtactcttc cgccgggggt cggtgaaaca cactctgctg cctcacagaa acaagggt 358

<210> 10292

<211> 388

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-F6

<400> 10292

cgggtccacag tctaagagaa aacaggagta tagctgctca taccgtaatt ctctgatgc 60  
ggaagtagag tattagaggt atactacata atacatgaat tgtattgtat tgtactgttg 120  
ctgtacaaga cgtgttacta cactatccct gtgggtctagt caacatggaa tcttcagggg 180  
aagtagtaaa gctgagtaca atgaagagaa atgtgtagcc agcttgtgtc gcatttttagt 240  
gctccaaaat tgtattcttg tcttgcatgg tgctatatag caatcatttt ggaacttctt 300

gtcaatttct tccggacctt aagaatcatt cacatattat actgcagtat actggtaata 360  
gctttttaca ctttaacaac tctaactt 388

<210> 10293  
<211> 440  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-F7

<400> 10293

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ccagggcata caaaactcat ttcgagcaac ttggctaata caaagcttat gcgttatccg 120  
aatcaccttc aaagcgtacg acaatagtgc aagtaactat ctgtcattcg ctatccagta 180  
gattaggtgt cacgtcattg acactatcac tgccttcattg tcattgctgc tagaccgcac 240  
attacatcat ccgtgatata tcaacagttt gctttattca catcgctcga ccttacgtca 300  
cgcacgtatt cttccgcatg aggtcgatga actaccctct gctgcctcac agaaccagcg 360  
gtggcactcc tagatgtatc ctcagatacc gtttctgcaa gcacattgaa acttgattgc 420  
ccctgacctc cttaggacct 440

<210> 10294  
<211> 212  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-G10

<400> 10294

ccccggtcga cctatcaaag gcaactcatg tctaataagt ggatgtcatc tgtcccaccg 60  
gtgacgcagc acctgtttcc tgcacgatt gagcagttta caagtgccaa atccccactg 120  
gctccggttg ttcacaggtt atctgatcca atagccgccg cagcaccctc ccggtctacg 180  
ctaattgtgga acgcccgtg tacgtcatcc tg 212

<210> 10295  
<211> 322  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-G4

<400> 10295

ccgaaaagaa aaagattaag gccgctgtca agaaaatgta cgacattcag gccaacaagg 60  
ttaacaccct catcatgcct gatggcaaga agaaggcgta cgtgaagctg acaccagact 120  
acgatgctct tgatgtggcc aacaagatcg gcatcatata agtcagaggg agggtcctgc 180  
agtaggcgct tgtgtcgtgg cttcttgtgt tattggaatt ttgtacttgt tacttaccaa 240  
aggggctcac tggctccatt gcctaccata tcgctgcaca ctttcatgaa tttgatgcaa 300  
tcgaagtgcac ctgttgttga gc 322

<210> 10296

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-G5

<400> 10296

cgggccaccg tccaaacaga gtgtgatagg ggcttttgat cttgaccact tcaaagttca 60  
atgtttctgc cctatagtca tattcattgc caaaagccac ttccaaggct atcttaccaa 120  
ctggatatgc tgacttacca ggcaccaccc catgaaatac tgtagaggac ggcttaagat 180  
ctttgtcggc caaattcata cggtgaaaag tatcatacta aaggatattg atactactgc 240  
ctccgtccat aagcacctta ctgaacttgt agccccagc ctgaggggct acgtaccacc 300  
aaagccagct gccccggatt gccaacctgg ggccggtgat cctcacgggt ccatacaatt 360  
ggctgctctg accatcgagg gtatcgaggc actgccg 397

<210> 10297

<211> 249

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-G6

<400> 10297

acggctacag cccaatctac acgccacagg aatggctctga atctgggtgac cgctacgccg 60  
gcggaacgac cgggcttctt atctgggccg tcaccctcgc cggcctcctc ggcgggcgcg 120



tcctctctgt ctacaacacc agcgctctcg ccggctaata gagcatctac gttttacaac 180  
 agggccgggt ccctgcttgc atgcacgtct ctgtaatcca catagctacc tcctgtgaat 240  
 gtatgcaat 249

<210> 10298  
 <211> 144  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-004-Q1-E1-H11  
 <400> 10298

cgccgggtcca cgatatccac tcaaatgggt cgtctcccggt gctgatcgcg agctagccgc 60  
 aattaagggtc tccccgcggg ctttacatga cctatgactg tgcgcatcta cccattatag 120  
 caactatgtg cagcgtgaat ctag 144

<210> 10299  
 <211> 347  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-004-Q1-E1-H4  
 <400> 10299

ggtccacgag atgacgaaac gcaccaagaa ggctggtatt gtcggcaa atggtacccg 60  
 ttatggtgcc agtttgcgta agcagatcaa gaagatggag gtgtctcagc actccaagta 120  
 cttctgtgag ttctgtggga agtttgctgt gaagaggaaa gcagttggaa tttggggatg 180  
 caaggactgt gggaagggtga acgctggcgg tgcttacact atgaacactg ccagtgcggt 240  
 cactgtcagg agcactatcc gtcgtttgag ggagcagact gaagcataag ttgctactag 300  
 tgttttgtcc tagtgaatca tctgggattt cgagtttag acgatac 347

<210> 10300  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-004-Q1-E1-H6  
 <400> 10300

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gattttttcg tcttatttgc agcgtaaact atgtatagta atcattagac catctttgaa 120  
gatctgacga acagaagcag aatgggttctt tctatactgt tcgaccccc tctccccccc 180  
cccaccttgc gttctctcgc agggagtggc tagcgcgcaa cactgccatg ctctctgct 240  
gctccgtcat cacagggtgg gacggcgacc tcgccttctt gttcattgtt ctgtcggtaa 300  
cgacgttctt tgtccaggat catccggaca gggaggtcct ccaggccatg cgtctaggca 360  
tgtactgcaa cgccgaccac atggccaaga tggtcgttgc ggcaaccgag ttccgtgctc 420  
tccgtt 426

<210> 10301  
<211> 346  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-H8

<400> 10301

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ggttaggcaa tgtgttgact ctagacttgg aggggactat cctcctaagg ctgttgcaaa 120  
gtttgcagcc gtgcggcat tgtgctcca atatgaagcc gacttccggc caaacatgag 180  
catcgtcgtc aaggcgctcc agcccctgct gaatgcgcga gcagcccacc ccggggctga 240  
gcatgccgga cgctaagcac cactccggcc ttttgtatga tatagataag gaaaaatgag 300  
ccatcaattg ttgttcttgc tgggcacttg tcaggcgggtt tttgta 346

<210> 10302  
<211> 392  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-A8

<400> 10302

ggagggagca gttgtatagt gagaacaagg gcgttgaatg ggaatcgcct acatcaaatt 60  
tcaagcacca ctgtctggcc aagttcatcc tcgtcggctt tcaagctaaa gactacatgg 120  
tgagtcatgt caggcgtgtc ctgaaagcag cgggtgaatct acaggatgtc tacctgtatg 180

atagactggg atgtgccaag tgccaagaga aagtaaagaa tgcgcgcagg tatgatgcac 240  
 tggtaactgg catatgcccc ggcgtgaatc tgcctataaa gttcccatgt acaaacgagg 300  
 accagcgtgc agtgcagaag cgaatgcccc ggggcattgg gtcacttgcc aaaatccact 360  
 tcctgtcatc taataaaata aaggctgaac at 392

<210> 10303  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-005-Q1-E1-B1  
 <400> 10303

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 cctctatcaa gtggatcag atttccaggt tgctcgggtga gattttacag tttttcgtag 120  
 attagatcga gtctgttctt catacctaca gtccacgaga aaagctaaaa aaattagggg 180  
 tagttcctca tatecgaacc aatctgagcc tttgcataat ctttttaggg tttttgcttt 240  
 gttgaatttg cggttgcac gtcgtgtcaa gttgctggtc ttagagtcta gtcttttaga 300  
 gtttcgagtt ctggtcatac gttgtcacgc cgccgccgca ccatcatcat cgcctagcta 360  
 gcacttttgc ttatccgcca cggctctgaa tccatatcga tataccacca cca 413

<210> 10304  
 <211> 341  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-005-Q1-E1-B10  
 <400> 10304

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 tgatgccatc tacatctctc tctactccat gggaagaatg gagagcttgt ggggtaaaga 120  
 ctgcctcgac ttttaaccag acagatgggt cctgggggat agcaacaagc tcaagtatgt 180  
 gccgtctaac aagttcttgg ccttcaactc aggcccaagg atgtgcccag gcaaggaaat 240  
 cgcagttgtg cagatgaaga ccatcatcgc cgcagtcgtg tggaactttg acctggagct 300  
 tgtggaaggc cagagcatcc aaccaagct atcttgttta c 341

<210> 10305  
 <211> 354  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-005-Q1-E1-C10  
  
 <400> 10305  
  
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 tatcaagtgg tatcagattt ccaggttgct cggtgagatt ttacagtttt tcgtagttta 120  
 gatcgagttt gttcttcata cctacagtcc acgaaaaagc cacaagaaaa ttagggtttag 180  
 ttcagtatat ccgaagcaat ctgagccttt gcataatctt tttagggttt ttgctttgtt 240  
 gaatttgagg ttgcatcgtc gtgtcaagtt gctggtcgta gagtcgagtc gtttagagtt 300  
 tcgagttctg gtcataagtt gtcacgccgc cgccgcagca tcatcatcgc cttg 354

<210> 10306  
 <211> 349  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-005-Q1-E1-C12  
  
 <400> 10306  
  
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 ctaccagct gtcaacgacg ggacatggca tttttgcaa tccgagatga cattaagtga 120  
 cgttgaccgg aatatgtctt aataagctgc caccagtga caccgttgaa ccgtttcaa 180  
 caacacaggt ctcgacaatg attcaacggt gggcagtga accgcagaag cccaagacgc 240  
 aagcttcgcc aacgcgtgac cggtgacaag accgctcggg aataaacgtg tacgcctga 300  
 cagctgacac ggcttcaccg atgggaaggg ggagcacagg caagtggcc 349

<210> 10307  
 <211> 371  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-005-Q1-E1-C2  
  
 <400> 10307

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 ggcagtgcgc tgcagcagat gtaaaggcta tggtcacaac aaagcaactt gcaaaattcc 120  
 tatcagcggc gaagccttgc cggccttgcc accagctgag ctctccgatg tacacaataa 180  
 ggtggagagt tgctcttgat gttccctgta agcaaagtct gctatttctt tcgttgggaa 240  
 cctgcggcat ggtagttagat tctagctcca agttgctctg tagtattcac tgttttgctt 300  
 acgctagcga catttgtttg gtaaatacaa cattgtgatg tgaaccatta gagaaacatg 360  
 ggaaattctg c 371

<210> 10308  
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 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-C3

<400> 10308

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 aagtcgtacg agatcctcct cttccctgat gataggcaca tgccacgcca gctatacgac 120  
 cggatctata tggaggagag gatctgggat tttgtcgaca gaagcctatg acagtgggag 180  
 aaaattcatc tgtacaaatc tgctgttgcc ctgtgtgact ttaaggtgga tagttgggat 240  
 gacatcgtgg acgtcatttc agttcccagc atcctgtatt tatccgcaag tgcacgga 298

<210> 10309  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-005-Q1-E1-C9

<400> 10309

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 tgcaaaccag gttccaaacc atgtcagaga acatcatcac gaagatagat gaatgggtgc 180  
 aagaattgat gaattggagc tgagcatcaa tgacctcaag gctgaaatgg gcancgatgg 240  
 tatgaccct actaaagtga aggacgaaga atcaaagcca gcagacagcc cttoctgagt 300

gaagcagaag tagcagaagc aaggcgtatt agtcgtgggtt ccatgtcgat atcatcagcc 360  
 attcatcact aacttactgc atgttaggag atgttatttg cactgggttat atgcatatgg 420  
 agatata 427

<210> 10310  
 <211> 318  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-D1

<400> 10310

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 cgcaaccgga gctactcat gtgtcgtcct gacctgacct aaaacgtgcg agatctatca 180  
 caagcattgg ctctggtgga ttggatgttc atttccgggc ccaaccgac atctcttacc 240  
 gatacgtcca gtgtcagctt tgccacatgc aagctaata gaagcatcag aacctgtaat 300  
 gcataatgat cggcagtg 318

<210> 10311  
 <211> 313  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-D10

<400> 10311

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 gagagcgaat agttgcatgt ctgctactac gcagacaact gcaagtgtca cccaggctg 120  
 ttgctccatg gtgttttgtc cggaggggca gttgcatgtg tgccactaag catgcatatg 180  
 caagtgttcc cctgactgca actctgtgtt gtttttgttg ggggggagac gttagttgca 240  
 tgtttgtcat taagcacaca actacaaatg tggaccata ttgcaactgg atgtgttcaa 300  
 tgtgagtgca act 313

<210> 10312  
 <211> 393

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-005-Q1-E1-D3  
 <400> 10312  
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 tggcagaaga ttggtgcttg gatcaatctt ggtgcctact atattgtcgg catcccctcg 120  
 gcctacctca tagccttcgt cttgcaagtc ggcgggacgg tacatcaaata gataaataag 180  
 aaagaatccc ttttcctgcc ctgaatttgt agtgagttca tatgtgccag tgggtttttga 240  
 gtgactgatg ctgtggggtt tatcggtgaa cacgaacagg gactttggct gggcatcatc 300  
 tgtggcctga tgggtgcaagt cctgctgctc atggccatca cgatatgcac agactgggat 360  
 aaagaagcgg gtaatgcaaa cgacagggta ttc 393

<210> 10313  
 <211> 431  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-005-Q1-E1-D4  
 <400> 10313  
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 acaggcatcc tgagcgccgc ctcaaggcat cattcaaggc atttgaagag gcagagctcc 120  
 ctaggctgaa ggaagaaaag ccaggcctaa cactgaaaca gtacaaagat atgatatgga 180  
 agctatggaa gaaatcccca gacaaccctc tgaacaaggc aactgagtga ggatacagtc 240  
 ccagtttcgt accgattgat atggattcta aggcattcaa tggaacagaa ctgcagctgc 300  
 ctcagtatct ttgtccgtgg agtgaaatga tgtgtggcat agcttgaacc aaataactcaa 360  
 gcttctcagc taataatcaa cagatcaatg caatgtatat tctgaggggtt tgctttttgat 420  
 tagagagatt t 431

<210> 10314  
 <211> 371  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-005-Q1-E1-E1

<400> 10314

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gagggttaatc aaattcaatc taaggagaag attctgccat gacaaagcca aaggccacac 120  
aaatcccatac tcaaagaaat atccggagag gatgagctga gcacatgcgc ctgcattcca 180  
gatgctctta ccaatttacc atgcaactca acgaccttga atccttgata gcacctacga 240  
gagagctacc catacaatcc aatccaatcc aatctgcggc taaccaactg cgcgaaatatt 300  
ttctacgctt cttctacaat ctcagacgga tcgctctgca acaaggatcg acataactgg 360  
cgtggggcga t 371

<210> 10315

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-E11

<400> 10315

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aattggcatc ctccctcctc gactcgacgc gcgcgtaatc cgagactacc ttcaagagga 120  
caagatgctg tggcgcacga ttcgcagtat ggaggtgatg gcgcattctt ctagtttctt 180  
tcttccgaaa ttgcatcagc ctgccaagac tccagcaaac aactatactc tggttgttct 240  
taaccagcag cttccacggt tcatgcctcg cctctgggct caagagcagc aaagatgaga 300  
atatgtgctg atggtggagc caatcgtatt tttgacgaga tgtctcaaat gacaaatgac 360  
ctggacagaa ataggtatat tccagaaata gt 392

<210> 10316

<211> 331

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-E3

<400> 10316

ggtcgggacc gagccggatg cgaatgtcaa gcaggcgatg aatgagatca atgcagctgc 60  
aaggatgagg gtggctgcaa acgagaaggc ggaggctgag aagattgtcc agaccaagcg 120



tgccgagggg gaggcagagg ccacgtacct gtctggcctc ggtatcgccc gccagcgcca 180  
ggccattgtg gatggcctga gggacagcgt cctgggcttc tcagtcaacg tgcttggcac 240  
cactgcaaag gatgtgatgg acatggtgct gatcaccag tactttgata ctaggaaaga 300  
gatcggcgca tcttccaaat cctcgggcgg t 331

<210> 10317  
<211> 438  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-E4

<400> 10317

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gttgcaggct tgggccagtt gttagtgaag gacagtatga gaagatcaag aagttttag 120  
cgaatgctaa aagtgaaggt gccaccattc tgactggggg tgtcaggccc aagcatctgg 180  
agaaaggttt cttcattgaa cccacaatca tcttgacat caacacatca atggagattt 240  
ggagggagga agtctttggt ccagtcctgt gtgtgaagga attttctacc gaagaggaag 300  
ccatcgaact ggccaatgat actcattatg gtctggctgg tgccgtgatt tctggtgacc 360  
gtgaccgatg ccagagatta gctgaggaga tcgacgcggg gtgcatctgg gtgaactgct 420  
cgcagccttg cttctgcc 438

<210> 10318  
<211> 335  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-F1

<400> 10318

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tctatcaagt ggtatcagat ttccagggtg ctcggtgaga ttttacagtt tttcgtagtt 120  
tagatcgagt ctgttcttca tacctatagt ccacgaaaaa gccaaaaaaa aaattagggg 180  
tagttcatcg catccgaacg aatctgagcc ttgcataatc ttttctgtat ttgcgttggt 240  
gaatttgagg ttgcatcgtc gtgttcagtt gctggtcgta gcgtcgagtc gtttagagtt 300

tcgagttcgg ttcacaagtt gtcacgccgt cgcgg

335

<210> 10319  
<211> 356  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-F12

<400> 10319

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tgtcaccaca aacagaaact aaagcagggtg ttggatttaa agctgggtgtt aaagattata 120  
aattgactta ctacacccca gagtatgaaa ctaaggatac tgatatcgtg gcagcattcc 180  
gagtaagtcc tcagcctggg gttccgcccg aagaagcagg ggctggagta gctgccgaat 240  
cttctactgg tacatggaca actgtttgga ctgatggact taccagtctt gatcggtaca 300  
aaggacgatg ctgtcacatc gagcctgttg gcggggaaaa cagccaatgg gtctgt 356

<210> 10320  
<211> 389  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-F8

<400> 10320

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taatggaagc ttgccttccc atagctggcc taatctaggt tatcagaacc ctgcatctat 120  
tccagcagca gcaccacaaa atggtgtcgc caaggctggg aacaacaatc aggacttctt 180  
ttctgggaac ttcggttttg gttcgcccgg catgccagca aatgggtcca caaccgcagg 240  
tgctaacaag agcgcattcca cccctacctc ttctaccctg ccctctcaat caggcaaaga 300  
gtatgatttt tcctcattaa cgcaaggaat gttctcgaag cgatgaatgg cttgaaatac 360  
ttggagatgg atgaggcctc cattgggcg 389

<210> 10321  
<211> 418  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-G1

<400> 10321

cgggtcgacg cagcagaagc catgaggtca ggggactggt tcaagaccat catcagcaag 60  
aagaagtcca aacggggcaa gtcaaagcac gcaaagaacg ttgctgcgca acgcaatgga 120  
gccaacctgc cgcaggaaaa gccagcaac gtccttctt ccagcagcga gcctgaggac 180  
aacgcagcac tggaagactg ggcagctacc cggattcaga acgcgtttcg gcgccacaat 240  
gcaaggagga cgctccgttg cctgagggga gttaaaagac tgcgcattgt tggccagagc 300  
aatccagtta ccaagcagac cagtgccaca ctgagctaca tacagtcttg ggacaagtta 360  
cagggctgag ctaagaaaag cggcgtgctt tcaaggtcac cgaacggcgc accaggaa 418

<210> 10322

<211> 418

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-G10

<400> 10322

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ttgcctctat caagtgggat cagatttcca ggttgctcgg tgagatttta cagtttttcg 120  
tagtttagat cgagtctgtt cttcatacct acagtccacg aaaaagccac aaaaaaatt 180  
agggtagtgc catcatatcc gaaccaatct gagcctttgc ataattttt tagggttttg 240  
ctttgttgaa tttgcggttg catcgctcgtg tctagttgct ggtcttagag tctagtcttt 300  
tagagtttcg agttctggtc ataagttgtc acgccgccgc cgcaccatca tcatcacc 360  
tgccatctac caccaccgct tttccgccag cgcttcgaat ccgtaaccat ataccaac 418

<210> 10323

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-G3

<400> 10323

ggtcttaaat acccgggtcg acagacgaca gaaaggagc ttgactggca agaccatcac 60

ccttgagggtg gagtcgtctg acaccatcga caacgtcaag gccaatgatcc aggacaagga 120  
 gggcattcct ccggaccagc agcgccctcat ctttgccggc aagcagctgg aggatggccg 180  
 cacccttgct gactacaaca tccagaagga gtccaccctg caccttgctc tccgccttag 240  
 gggaggcatg cagatcttcg tcaagaccct caccggcaag accatcacac ttgagggtga 300  
 atcctccgac accattgaca acgtcaaggc caagatccag gacaaggagg gcattcctcc 360  
 ggaccagcag cgcctcatct ttgccggcaa gcagctggag gatggccgca ctcttgctga 420  
 ttacaacatc cagaaggagt ccaccct 447

<210> 10324  
 <211> 341  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-005-Q1-E1-H1  
 <400> 10324

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 ccaatctata gagcacactg ctagtgtgtg tccactcagg ctgctgttat tcacattcat 120  
 cgtttgtaac tttgggacta aacaggaaaa gaatgctggg ttttgagcaa tgttgggact 180  
 aagtacagca cattcagcat gtatgctttc tcatatcgaa tttatgcgcc gtggattaat 240  
 tcactcactg tgataagaac gttgctaatt gtgcctttgg tggaacaggg ttactaattt 300  
 aattgttga gaattgtatt tccaagtcgc tccgaagtgt g 341

<210> 10325  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-006-Q1-E1-A11  
 <400> 10325

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 agagccatct accaatgtgg tcttagctga tcatgttacc acgaagaaat ggtagcaagt 120  
 tgttgatttc gacgaccacc tcgatgatat cagcaagtaa gtggaagagt ctacaagtgt 180  
 catgaagcta tagtttgtaa taccacacaa agaagttgta cttctttttta ataaccatat 240

tgagtgcttc ctttcctctg tttacattat ttccccttgc atatttgcag ggactgggtg 300  
aacgcaagcc tgcttggttg acacgggttt gagatcaact ttgtcacata tttatttgaa 360  
ctggctagaa acaaggca 378

<210> 10326  
<211> 406  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-006-Q1-E1-A4  
<400> 10326

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acatcgacag catgaatgaa gatgcaggag ataccgacga accaacgccc atagggcatt 120  
ggacagccac ctcatctcac gatgtgtaca tgggtgatac ccctaaagga agcgacaacg 180  
aggaaaaagg ggatgggacg ggagatcgac ccccgaaaa gcaatcaaag cgtcggcgta 240  
aacaccgacc caagccctgc ctcaacaaaa acccagccat agagcaagac gagccggtaa 300  
acgactggca tgcttttagag caaccgtctg aacaaggaaa cacgtataga gaaaccgaac 360  
atccctcttc gggcgaaaac ggcgacctca caccacataa acctac 406

<210> 10327  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-006-Q1-E1-B1  
<400> 10327

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actattgtgg cacatcttac taagttgaat gatatagcca ccctttttac tcatgatgag 120  
aaaactcgat actactttat tctcaaatta tcccctttct cattaaaggg ttatgctaaa 180  
gcttggtaca atattcttgc tcttagttgt gtgcgtagtc cccaggatat gatttattac 240  
ttctagaaaa aatattttcc tgctcataag aaacaagctg ccttacagga aatatttaac 300  
tttgtgcaaa ctaaagaaga gagtctccca caagcttggg ggaggctttg ccagttactt 360  
aatgctttgc ttgatcatcc tcttaagaaa aatgagatac ttgatatctt caataatggg 420

acaaccgatg cttctcggga c 441

<210> 10328  
<211> 451  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-B3

<400> 10328

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atcagcatgt gggaaacaat gtccatgtcc tataaatggg gcatgctgtg agaaatattg 120  
tgggggacaa tccaacaac aattgcaggt actttagcgt tgtctctatg attcatgcat 180  
gagttgctgg tgttgtcatt ttcaattcag tggtatatca ttttaacaatc acaatccagt 240  
cagtaggcct ggcggaaagg aattaagatg tacactggca agaagaagat ccagaaggac 300  
aagggcgctcg agacctctga attcgaggat accatcgcg aggggctcac cacaaatcac 360  
ttgcaagaag ggctcagttc gaaaactaag gttatgcttc accaaggatt tgaagggtcc 420  
ctcgccgtgc cgtggacacg attcaaccat g 451

<210> 10329  
<211> 432  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-C1

<400> 10329

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gtctaccaca gcgacaccgt gtgagatccg tgcactcatg gtaggctcag ttggtgcctt 180  
ggtggactag tgaagtgaac ctgtatcaat atcttcaggc tctggttcaa tggcctacga 240  
gatcagttag atcaaaagga tctgtacctt tcttccttgg tctctttctt cgatttgcga 300  
gatggcctgt tgctggtata atcctggaac tgtatggatc ttttgcctc ttcagtgggt 360  
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acccctttca gc 432

<210> 10330  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-006-Q1-E1-D1  
  
 <400> 10330  
  
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 ccgcccattct cgtttggggc cggtactaat ataatccggt caaaattttt ggccttattc 120  
 gaatttgctg ctcgggcccat ggtccaaaaa agctgcaacc gagcctttct aggggaactc 180  
 ctatacgccg cattttgccg cgagtagtcg ccctttcgca cagagccagc tcacctgggc 240  
 cggcccattt gctgtaggga tgggaaatca caaaaataaa aaggctccag caatacgact 300  
 caaacacaca acctttcagt aagggtgcgc ttgcgctagc cacctcaact gactacctca 360  
 catgtaaact tggcatcgcg aatattaaag aacctagcta taaaacttaa aaa 413

<210> 10331  
 <211> 345  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-006-Q1-E1-D10  
  
 <400> 10331  
  
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 gtgggagaca cataggcaca tatatatatg tgcgtataga gggctagtag agaccgtgcg 120  
 tgtgtatata tgcattgtgag agaaatagtg ttttccaact aagattagtt aaaagagtgg 180  
 tacatagtag tcagaaagag agtgagagag agggatacag agagagcatg tgcgtgagac 240  
 tccccgacac cccaagagag attgtgagca tgtgtgaaag agaaatgccg gtgcatataa 300  
 agtgtgtgca cttatgcggg agatagagag atatacaacg cgttt 345

<210> 10332  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-006-Q1-E1-D3

<400> 10332

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tcaatgcagc tgcaaggatg aggggtggctg caaacgagaa ggccggaggct gagaagattg 120

tccagatcaa gcgtgccgag ggtgaagcag aggccaagta cctgtctggc ctcggtatcg 180

cccgccagca ccaggccatt gtggatggcc tgaggggacag cgtcctgggc ttctcactca 240

atgtggctgg caccagtgcg atacgacagt gatggacata ggtagctgca tcacgccaga 300

tatctattga ccactatgaa ttgagattgg agcgtcctcc atgtcctctg cggtgttcat 360

cccccatggc cctgggtgagg tgccgcgacat cgccacgcag atccgtgacg gtcttcttca 420

aggccagtct gcctctgaca act 443

<210> 10333

<211> 413

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-D5

<400> 10333

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ttctctcggg ggttgaatt ttgcaagatg aagttgatcc tatggtttct gtcataaag 120

ttgagaaggc acctttggag tcttatgccg acattgggtg tttggatgcc caaattcaag 180

agatcaaaga ggcagtggaa cttcctttga cacatcctga gctatatgag gacattggga 240

tcaggcctcc gaatggagtc atactatacg gggaaatctgg aacagggaaa actctacttg 300

cagaggctgt tgccaattcg acatcagcaa cattcttgcg tgttgttggg actgagttga 360

tccagaggta ccttgggtgac ggacgcaagc ttgtaagaca actgtttagg gtg 413

<210> 10334

<211> 370

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-A3

<400> 10334

catcacatcg agggattcgg aaccgcgcct cgatcatgtg gcaccacatt tccatgttgc 60



tcggtgatat ttgacagttt ttcgtagttt acatcaatgc agttcttcat agctagagtc 120  
gatgatcaag gcaatcatca ttagggctag ttcatcccat ccgtgccact ctgagcattg 180  
cgggatcctt tctgtagttg ctttgtcgaa tttgcggttg cattctcgtg ttcacatgct 240  
gggctgacag tcgaggctgt gatactttca agttcagtat acagggttgta aggccatcgc 300  
tgcagtatca tcactctggga tgcgatctat caccaccgct ccgcatccgt atccatatac 360  
caccaccaat 370

<210> 10335  
<211> 402  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-A4

<400> 10335

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tcgacttggg tgtctaaata ttctcaccat acttggctcc ctctcggcct ttgcgtcatt 120  
ggcgcaacga gtcacttagt taacattcaa tgaagaaagg tatgtgctac tttgaagggt 180  
tagggtttag ggttcatggc ccagatccaa caagtgtagc tttcgagagt gtgtactgaa 240  
accaagtgtg gtgttggttt ctgtgaatag acatgaaaag agaagatcgc ttggagcagt 300  
ctgcagggtt ttgtctcatt caccatgta tgtatataca acagttgttg ctggagataa 360  
ttgtatctat aatcctcata ctgcgcggcg acgtccaact ca 402

<210> 10336  
<211> 454  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-B1

<400> 10336

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cctctttaat tcgtcatttc ctgatatcaa ctatttaata actcatttat tcattttctt 120  
tgccggcggg cagggtcttg gaaaatttca tcaacgtgac tccaggccaa tggcgaaaaa 180  
atgtgtattg gtttcgaccc aaggtaagta attaagtagt actagctagc taccatctct 240

ttaattcttg tttcaatact attaattgtc atgcttgatt aattattatc tgattaaatt 300  
ctattctcgt aaaggccctg aagcaggcgt cggggactga agtgtgtgca tactacgttt 360  
gcgagaacat tcgcatgatg gcgtccgaaa ggagcaaattg tgatagacag ctatgggtac 420  
gtttgccaga acactattca caattttttac atca 454

<210> 10337  
<211> 242  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-007-Q1-E1-B12  
<400> 10337

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cactagtttg ccccatcatg agtgtttcaaa acctcttctt ctgacaatca gtttgtgtgt 120  
tccgggtgac tgagctctaa acctttttatt gattgggtcc acatggctgg tcacattttg 180  
gtggtcttac gtatttgcaa caactaactt catgcatcag ttgcactcat cctctttggt 240  
tc 242

<210> 10338  
<211> 406  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-007-Q1-E1-B3  
<400> 10338

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atggcogttc tatgtggtac tgacaaatta agacgggacc ttttcttgaa catggtgctg 120  
gtcagtgttg gtgttgtagt ttcattcatat ggggagattc attttaatgt aataggaaca 180  
ttataccaag taactggcat tgttcggaa gccctcaggc tggctctgac acaggctctc 240  
ctccaaaaaa agggattaac cctgaatcct attacaagtc tgtattacat agcgcttgc 300  
agtttcatct tcctatttgg tccatggtat ttactggaaa agccagaaat ggacatctct 360  
ccaattcagt tcaattattg gatatttttc tcgaatgcac ttgctg 406

<210> 10339  
 <211> 400  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-007-Q1-E1-C11  
  
 <400> 10339  
  
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 acctttaaat cttgcctcat attcaaagac ttgatttttg agatcataga tttgtctttg 120  
 cagaaagttg atttgctcgt tgagggtgaa gacgacgtcc ttcattggact ggccatccac 180  
 cttgtgatca cgggtgaaat atgtaatcat gaggtgattg gcgttgagtc cgcgctccac 240  
 catccccttg cacttgagga cctcctgctc catggcttca agcctggcct ccacgggtccc 300  
 cttccccttg ggcccctgga tgtctcggat gtggagcacc cctcatgca tctcaatggc 360  
 ttgagcgtgg tgataatccc aagtgaagg aatcatcgta 400

<210> 10340  
 <211> 443  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-007-Q1-E1-C2  
  
 <400> 10340  
  
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 gcaacttgga aaaaaagtct agccccattt gtgtcgagag cgggcttgca aaaaagacaa 120  
 aaatggttgg ggccaatta agaatcgagg gtggactttc aactgggaca aaaaaggtcg 180  
 gagccccgtc gtgagtcaag ggtagacttg caattaggat aaaaagtgtc gagacccggt 240  
 tgtgagtcga gagtgaatt gcaacaggga aaaaaggcca ggcctagtgt gcgactcaag 300  
 ggtggacatg aaactcgtac aaaaaaggct agactccagt tgcgagttga ggggtggactt 360  
 gcaactggga caaaaaaag tcaggtccta gttacaagtc gatgggggta ttgcaactgg 420  
 gacaaaaaag ttcgggcccc aat 443

<210> 10341  
 <211> 440  
 <212> DNA  
 <213> *Triticum aestivum*

<223> unsure at all n locations  
<223> Clone ID: LIB31-007-Q1-E1-C3

<400> 10341

ccgggcccag acaggtccca gactaggcgg gatagaaggt atcctgagga tgagcgcgac 60  
agtcatcatc gccgtcgagg agaagagcgt gctgcccacg acggcctctc acgctctcgg 120  
ttgcaaggtc ggataaaact tccaggggag acatcacttg acagacttgg cccacaccca 180  
cacctagaga aagagagagg gcatagagac aggttgtctc caccaaagca aacagacctt 240  
cgagcaaagc ttcatgatag gctaaaggct agatcgaatg aggagggtccc tggtaacctg 300  
aagagttcag tggtaaaagc aagtagtggt gaggatgctg ggggtggtgaa cttttctggt 360  
ccaaagagcc ttgcagagtt gagagcaaag aaggctgctt acagatcagg aganaaact 420  
gtcaagaatg ctggcogtgt 440

<210> 10342

<211> 396

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-C4

<400> 10342

gggcccgactc ccaagaaggg gaagaatgtc gagctgccta ccgtcaaagt cacaagaac 60  
agcgttggcg gcggcagggt ctcggtcacc gttgagaaat aagcttggct tgcagcagca 120  
ggccaaccgt cgccaagtga tctaataag ccggcggcag agaatttttag cccgtggtat 180  
tttggttagt agttaattta gcacaagata ttttgagtag ttaattccgg atgatggtgc 240  
tggtatctgt tagatagttt gagtgtgcct gtcctttagt ttcttgaaac attgtcgtct 300  
gccctagtgc aaattcgaag taactataca ctccaattgc aaattataaa tatatatgtg 360  
cctgagttat cgccatgttt gtcacgcgat ctctca 396

<210> 10343

<211> 433

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-D1

<400> 10343

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atcatcatcg gacgacgaaa gtctccggca gagtgcgaact ggtgccacga cgatcgaggt 120

ctgtgcgaca tgcctcacct ggacgatgat cggcgcttca gcattaagct cgaggagacc 180

ttcgaagttg aaacggtaca caacgacgac aagtgttatt ttcataatta agcatgactt 240

caactatttc aacgtgtaat tttcatcttt tacaattcga gtatagctta tcccatgccca 300

tgcaagacgc tatgtcttgg agaggatgga ttttgaagac catgaaattt ctgaaacaaa 360

gaaaattcac ctaaggactc atcacgatgt ggactttgaa gtaaattctat ataattctga 420

gagcgtaacc cat 433

<210> 10344

<211> 454

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-007-Q1-E1-D3

<400> 10344

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agaagatccg tcccataacc ttttggagtc ggtggetcaa tcgattgccca acaccacgct 180

gctcaagttc cctcagatct ctgctgtccg agtgaaggtc gggaaacctc atgtcgcggt 240

gcanggcgtc gtggactact tgggagtgga gatactgagg cacagaaagg catgagcttg 300

agcagaactt catttgggaa agcctggcca aaatgcccc tcagaattgc agttgagctg 360

atttctgtgt ctcatctata aacgtgctgt tgattgtcct gttactcttc ggctgatgct 420

gaaattgccg caatcacggg aaaaagattg atag 454

<210> 10345

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-D4

<400> 10345

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 actacgtgtt tcattaataa atatacacac agttttgata aaaaaatgaa taaatatatt 180  
 ttagcatcag cagaatggta atattatcca tgatattttg ctattccaca cttacatctg 240  
 tctgccatgg gttcctgaaa gacaaacaat tgtgattgaa cagaggaaga gcacatcact 300  
 ctactcaat ggctggcttt ggcattcttt aactacacc tttgaccaac accatcccat 360  
 cgtttctcaa attctgtgta gcaaaatttg ctcggtgtat tggtttactc taatatctcg 420  
 gtaaaaaaag ggtatggag 439

<210> 10346  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-007-Q1-E1-E3  
 <400> 10346

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 gccgatatcc tcgccctcac tgcccgtagc tcgactgtcc ttgttggtgg cccttactgg 120  
 gacgtgccac tcggtcgcaa ggactctctg ggtgcagtgc atccactcga tcatacaatg 180  
 acatccctgc cccaacaac accctaccca ccatcatcac taagttcaat cgccctcggtc 240  
 tcaacatcct ccatgtcgtc gccctctcaa gtggtagac catcggcttg tctcgtgca 300  
 ccagcttctg gcagatgctg tacaaccagt cagacaacgg tctggccgac agcacactgg 360  
 atatgtccta cgctgcgcaa ctaaggcagg ggtgccaccg catcgggtgcg tacatcaatc 420  
 tcttcgcact ctacgtcgtc agc 443

<210> 10347  
 <211> 230  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-007-Q1-E1-E4  
 <400> 10347

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caacattcca tgcattgtctc agtcaaccat ctctaacttt acatgcagga aacatgtggg 120  
 actgcatgct ccatcatatt gggcgagtgt tgtcatcact aagtcaagtg agggcaatat 180  
 gaactctaac gacttaagct ctacctcgat tatgacatca catatatatta 230

<210> 10348  
 <211> 272  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-007-Q1-E1-F10  
 <400> 10348

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 ggcgggggaga cacagagcct gggatgggga ccattgtcgt agggatcgct gagtcgcgtg 120  
 gggaggcgga gacgtgccgt gggcaatcct ttggtgcctt cagtggcctc gagaatgggt 180  
 ccctctttgc cttcagaatg gctgtactgc taggaagctg gatgtaaaag gtagtgaggc 240  
 cgtagtagtact ccatgggtca gtcccatact gt 272

<210> 10349  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-007-Q1-E1-F3  
 <400> 10349

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 gaagtttctc tggaaagttt taatttatct catattgatg taaaggtcgg gaaagataat 120  
 aagaattgggt gttttactgg tttttacggg gagcccaggg tggccaatag gcatcacagc 180  
 tggcagctct tacgtacctt attttttgtc caacacgaag catgcatctg tatgggtgat 240  
 tttaatgaga cgcttcaggg ggacgagcat tttggagcca acgcaagacc ggagaggcaa 300  
 atgcggtgctt ttcggaagc agccgcggac tgtgcactcc ttgatgtggg gtggcggggg 360  
 gtccctttca catgggataa caagcagcag gggaacgcga atgtgaaggc tagactggac 420  
 tgtgctatgg tcaactc 437

<210> 10350  
 <211> 401  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-007-Q1-E1-G11  
  
 <400> 10350  
  
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 cacacgacta acctgccctc acgccagatg gtctagcggt ttccacagtg gttccactga 180  
 aaccgtccta tgcgtccggg gagcagatcg tcttctcctg ccagcctgtc tacgtgtcgc 240  
 ggggaaggat ccggcagttt acatgccctc tcaaaggact ctggctcatc agcactctga 300  
 aatgcacgcc catattatgt cgttttgggt gggatgttag tccacactga cggtagccta 360  
 tactgcgttt gcctatcgca acaccatgcg cttttcttgc c 401

<210> 10351  
 <211> 461  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-007-Q1-E1-H1  
  
 <400> 10351  
  
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 tgactgtgac atagatatga tgagtcaacc atatgacgta tcgggctatc agcatgctaa 120  
 tgaggatatg gatgatatgc gccggtagga aggtcgttgg aaggattgca aaaagtctct 180  
 cttcatgaat tcctcacaga acacgcctgg agatgccacc tcaacacagg ctcaactagc 240  
 cgggggtcgt acagtgttta gcctgggaac cctggggtaa gggtaagga agggctctgga 300  
 aggtgtgccc aagaaaaagg agatgaagag attgcggaag ataactgcct ccaaacaagc 360  
 cagagcacat aacagccaga agattgattc tgaagagcgt gcacccgtga aagggtgcgt 420  
 catgttccat ctcacgggcg agccgatgct accgccgaaa c 461

<210> 10352  
 <211> 218  
 <212> DNA  
 <213> *Triticum aestivum*



<223> Clone ID: LIB31-007-Q1-E1-H12

<400> 10352

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caacgtatcc atttcccact gatcggttt actactctct cgtgtacgc atagcgcaca 120  
gggtgtcctct cattcctgta ctctcagatt tgggcgttcc actccaactg cgacgtctgg 180  
ttgtctgaga ggcattgatg ccccgagttt gccccggg 218

<210> 10353

<211> 354

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-H4

<400> 10353

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tgccttggtc atccccaagc ttgaactttt gtgtctcctt aattcctctc atatcatggg 120  
ttctcttttt agcaaaagct tcattcaca taaactcaac aagaactcgt cagatagggt 180  
agtataaacc aatgcaaaac cttatcattt tctactgtaa caaatcacta tattattatt 240  
ccacattaaa tactaaatgc ctctgcatat ttaatactcc tatcatcaaa tagaatcagt 300  
aaacaagcaa acatatgcaa acaatgcaac cataacagca atctgccaaa acag 354

<210> 10354

<211> 309

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-H5

<400> 10354

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ctacacttca cctatagcta ctccatctg tcgttatctc ttccgacggg tgcttcctcg 120  
gggggtctcg gactctgagt tctattcaca tccgtgttta gatgtttctt tgcgtgttca 180  
cttcatcccg ccactttatt ttccctcatc aggagacaat tgcactatca ctccctagat 240  
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cacttctgt

309

<210> 10355  
<211> 426  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-008-Q1-E1-A10  
  
<400> 10355

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aacaagaatt gacatcctct aatgctaact gttgaccatt cttctctgaa gtatcagagg 120  
tgtggattgg aatcagtttt ttttgctgca cccccattcc gacgaggtca cgcacacata 180  
ccaccgggaa tcccacgaac cctatgttcg agcgcgagcg acggcaatag catctgcaag 240  
tacttgacca acacgetacc cgggtgtggt atccactatt gaggccaaac aacctagctc 300  
ggtcacacct aagtgtgctt gtgtccagca cctgatgaag aacgggagaa gattgctgac 360  
tttgtgccta atgatggttg cctgaacttc gtagatcaaa ttgacgacgt gttgattgct 420  
gaattt 426

<210> 10356  
<211> 353  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-008-Q1-E1-A5  
  
<400> 10356

ctattcacat caaacatcac ggcaccaata tcagctactt atcatttttc ctttctgca 60  
gtgaatctac tcatgtcatg tgtaacatcg gtactatggg ccaacatggc tcataatgga 120  
tgcacacatt tgcagcccaa tccgacacaa ctagaccata tccgagcttc taggcaagga 180  
agcagctgct gtccacaaca agcatattta acacctgatg agcaaacata ctcaagtcca 240  
cattccgaat ctctacacta tcttcactta catcgtaat gcaccccta ggagagctgt 300  
ccaagcagtc gatctgcttc aagctcaagt tgaaaccttg ctgtgacgcc tcc 353

<210> 10357  
<211> 399

<212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB31-008-Q1-E1-A8  
 <400> 10357  
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 ctatcattgt catgtcgccg ctgccatata tcaccaccgc atcatcatca tcgctgctgc 120  
 cagggaccac gaccgcacca acttcatcgc tgctgcgata taccaccacc acatattcac 180  
 cgccaatccc aatccatata cgccaccaca tatccgccgc catcacacca atccgagttc 240  
 acctgcaaca tatatccgcc acctgtccgc gttccatcag attcatctcc cccaccagtc 300  
 ctactccaag tccagtatct tggtactcta ttttgattt ccagatcact ccatactccg 360  
 agtcctgaca gagaacgact ccaaaacttc tgtgttacc 399

<210> 10358  
 <211> 350  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB31-008-Q1-E1-A9  
 <400> 10358  
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 aatcatgtag caaaaagcta gtatggctca tagtcatgaa attatttccc ttgatttctt 120  
 gcttagttac atgcacatat tagataacaa aaatttgta aatcgtccag agggaaaatg 180  
 gcgaagagaa aactgttgg cctactactt gtccttgcaa ttatgttctc ctacaatgtc 240  
 ttggagggcg gtgcacacca gagccaagtt gtattctctc gcaaagtgac gaatgcagag 300  
 cacaagcat cctttagcgg gatgacttca tcccttggtg ggcgtgtttc 350

<210> 10359  
 <211> 380  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB31-008-Q1-E1-B10  
 <400> 10359  
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cagcagctgc ttcatttcaa tggcacggag atgaacaatg ctgagaagct cagcgccatc 120  
 ggagtccatg atggtgatcc tgtgatgatg gttgcctcca ataatacgac atctcatgat 180  
 attatgaggt taaatcctga tggatcggca gtatatcctc aatctttcca acatcatatt 240  
 cttggcgatt cagaacttat tgcgcaactc cttcaaaatg acccgtcatt agctcaatgc 300  
 atccttggtg atgacaccac tgagttgcaa cacagcttgc agtcacacca ccaataacga 360  
 gtacaactga gtcgcataca 380

<210> 10360  
 <211> 291  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-B11

<400> 10360

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 gtccgtcacc aagagcaagt ttgacaagct ttaccgttgc cgtcactcgc tcaactgatgg 180  
 tcttatgaag gccactgatg ttatgatctc cggcaatgtt gccgtgggtct gtggctatgg 240  
 tgatgttggc actggctgtg ccgctgcact taagcaggct ggtgtcagtg t 291

<210> 10361  
 <211> 251  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-B3

<400> 10361

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 caacatgatc agatgggtca ctgggggatac ggggtggcctc tttaccaccg tgaaggatgg 120  
 ggagtttatc actgggaatg ctcaccatct gatagacctt gctagtcaag atatcaagaa 180  
 caatgtccaa cacgttgcca acaggcgtgg taagcacact agcaatcgtg atatgcatag 240  
 atctgcagct a 251

<210> 10362  
 <211> 375  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-C10

<400> 10362

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 ctcttgcctt caagtacaac caggagaaga tgatctgccg caaatgctac gcgcgcctgc 120  
 acccaagggc tgtcaactgc cgcaagaaga agtgtggcca cagcaaccag ctgaagccca 180  
 agaagaagat caagaactag agtgctacta gtcagtttca tggaccgggt gaacccattg 240  
 ctgtgttagc gtttatgcta ttgtcgtcac gatgtcgatg aaccttactt tactttgctt 300  
 tcagccacca atcgtttgtg tgatgataac tgacagtatt ggtatatggt agcaaaccta 360  
 taattttgcc gtaaa 375

<210> 10363  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-C11

<400> 10363

tcccgggctc actctgagag agaatgggcc tatcgtaaaa taacggagat cgagaccacg 60  
 aaacaccacc tcttttacct gctcgcagaa atggacaaga gatacccggg ccgtagatac 120  
 acgtcaaata acaaggagct gatccaccat cttttcaaac acgtcgaggc taaccccagc 180  
 gatccccctc ggcgccacac tctcggaaga gaaagactca ataattgtgt gatatatgga 240  
 atgccaacgc tgatggccac ttggttgtat ttggactggg agggttggaa aaatatgttc 300  
 gctttcatac ttggaattgg gcactagttt tctagctcaa tctcttgagt ctagatgatg 360  
 ctttcgacgg gacgggagta aagttacgtg gccaaacttct tgttttcaaa aggtttccaa 420  
 ataaaagttc aat 433

<210> 10364  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-C12

<400> 10364

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gacgacgcac aggacgctgt catgctgcag gtggcgctcag tgtggctgcc atcgtgggtc 120  
atcacatggg agggcgatcg aaggagctg ctcgctcatg gaatctgggc tggcctagat 180  
gtgacgacca gttggctctt gcggctcggt ggcaggagtc ctagggcctt ctctgtgct 240  
tttgaattgc tgtttatttg aatagacaac tgcataaat tagaatgaca aggtgctaag 300  
agaagatcat gatacatata tggatatccc tgcattctat gaattatgaa ctgtttgatc 360  
aaattgtttt gcactttttt acaggtataa acataactca ggtttgaact tagttcaaac 420  
ttgattcatt ttt 433

<210> 10365

<211> 409

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-C3

<400> 10365

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gtttttgctc ctcgcccgcc tctacttaat gcaagcccga ggaggaagag aggacgtatc 120  
agagaaatct gagaaacgcc aagggtctgc ctttctctta ctgtgatagt ataatataga 180  
tgaatgtgta gtgttctggt ttactatat atgcagtga cgcgtgtatg gttatgtatg 240  
tgtagagaag gtgttgaaag ttgctgctgc tgtgctgtgc tgtgctgtgt tagtatgtac 300  
ttgctgtggt agtatgtact taggtcgtca cccctgggct ggcacgcagc tcctcgtttg 360  
tgttttgtct actatgttgt ggaggcctcg tccttccatc acgttcgtg 409

<210> 10366

<211> 415

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-C4

<400> 10366

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 atctcgggta ggggggtcccg aactgtgcgt ctaggatcga tggtaacagg agacggggga 120  
 cacgatgttt acccaggttc ggtccctctc tatggaggta ataccctact tcctgcttga 180  
 ttgatcttga tgaatatgag tattacaaga gttgatctac cacgagattg taatggctaa 240  
 accctagaag tcttgtctgt atgactatgg taatgaatat ctgccttccg gactaacccc 300  
 tccggtttat ataggcaccg ggggaatcta gggtttaca agagccggtt acataagaag 360  
 gaatcttcac agttgatcgc caagcttgcc ttccacgcca aggggagtc aatcc 415

<210> 10367  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-C5

<400> 10367

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 catggttatg aaactgaaac tgttgtggca catcttacta agttgaatga tatagccacc 120  
 ctttttacgc atgatgagaa aaatcgatac tactttattc tcaaaatatt tcctttctga 180  
 ttaaaggatg atgctaaagc ttggtacaat actcttactc ctggttgtgt gcgtagtccc 240  
 catgatatga tttattactt ctctggaaaa tattttcctg ctcataagaa acaagctacc 300  
 ttacactaac tatttaactt tgtgcaaact aaagaagaga ttctcccaca agtttggggc 360  
 aggatttgcc agctacttaa tgctttgcct catcatcctc ttaagaaaaa tgaaacactt 420  
 gatatcttct ataatggact agctgatg 448

<210> 10368  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-C6

<400> 10368

cgggtccgaca ttcccggggc cacagcgggt ggtaaactctg gtgatagctc ccctaataag 60  
 ctccaatctt tcctgatct ggaggatctc cgtcgccttg ttccatttgt tcgtcgtgt 120

cgtggagatg gggacagaaa gtggaagagg tggagcgcaa gtttgtttcg attagggtttg 180  
 tgcataattct catcgggtgct tggagtggag ctacgggggcc caatggagct gccggtctcc 240  
 gacgcctccc cggtgacctt tctggccgaa gggcgggctt gtgaagccaa gctggcttcg 300  
 tttcttcctc cgggcttgat gccaatlgag aggcaactgt gcaaattcaa aatggagtcc 360  
 ctttcttcca tctttgtccg gagatagagt attggcggtc cggtgatctc aaatggtcac 420  
 gtc 423

<210> 10369  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-C7

<400> 10369

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 atcgccctcc cggagaccga tacagagatc aatgatctga gcggcaagggt ggtgaaagat 120  
 gccgcatcga cgccgaagtt cacacagcgg gagatctcgt tcctgctgag gctgatgccca 180  
 gagcttgtgc aatagcacag attgcacacc attaaactcat ggctttggat gtaaccgatt 240  
 gattggcatg caggacagga ggagcccctt gtggaggaaa gcacaggttt acatactggg 300  
 ttggtgtgat gtccttcggt gagccctggt actgggagag ttggggattg atatgatatg 360  
 tacatgttgt agtgtgggtg gcgaaatttt tggatataca tgttggagtg aatgtca 417

<210> 10370  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-008-Q1-E1-D11

<400> 10370

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 aactaaaacc aggctcagag tttccccgag gtggcactgc aaggggctct agttcggacc 120  
 aacacttaga gtagcactgg cgcgcggggg ggggggggta aaataaagat gaccctcggg 180



ttaattactc ccatgggaaa agtaatgggt tgtaggcaa atgtagaaca aaggttgggc 240  
 cttgctggag gagtttcttt caacgcgaat tgtcaagggg ttcccatata ccaaaccgcg 300  
 ttagggacgc aaaatccggg aacataatac cgatatgacg gaaactaggg cggcaagagt 360  
 ggaacaaaac accaggcata aggccgagcc ttccaccctt t 401

<210> 10371

<211> 365

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-D12

<400> 10371

cgggtcaacg accacagaac ggggtaacag tgactcttgc atgacttcat tgacagacat 60  
 gcctatcagc tcttattgtg gttcataagt gatgaagcaa cacgaatcat ctgggtgctcc 120  
 tcctttgcta gtcaaggatg agttggctgt atcaaatttg gatatacaag caagtttctt 180  
 agataagacc gatgatgggt gtctttccca aaacaatgga atgcacaaat ctgagttacg 240  
 cctttggatc gagagcggac atagcatgaa atgtgaaagc gtatcatcct caaacatcac 300  
 aggtcatgat acaccaagca aggcaaatcg aaagagatca cgaccagaag agagttcgaa 360  
 gcccc 365

<210> 10372

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-D2

<400> 10372

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 aaccctaccc ttctgagcc accatgtccg cctcatcgtc ctctctctc ccagttccgc 120  
 cgatttccct cttgatctca ttcgggtgtcc cttctgtggc gtggatctgg aaaccaatgt 180  
 ggcaaggacc gggagcaggg cgggccagag gttctacaag tgtgtccgct atgatgtaag 240  
 ttctctgtt ttctacaaa tctcgattag ttctttccc gttcttggtt cagttctcac 300  
 acctgcatct cgcagtgttc ttgctaattt tctcgcaggc tcgcgagtgt aggttcttgc 360

agttccagaa ggcatacgtc aggaggatga ccacctacca gatcgcccgt gctcaacagc 420  
aggcgggggt gctccacctc cagatgcacg ca 452

<210> 10373  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-008-Q1-E1-D4  
  
<400> 10373

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actaacacta atattcttga ataattattt agtaaacacta atattcttga ataattattt 120  
agtaaacacta atacttcttg aataagtagt ttgaccatag tttgagcaga ttttaacaaaa 180  
agtaaaaaaa aataaaaaaa actaaaattt aagcataact ttttttcttt ttaaaatttg 240  
aggattttta aaatttgcaa acaaggaatg tcatgggaat ggagatctgc cgtgccggca 300  
ttagactaga cgattagtgt atgtatgttc aaaattttac ctccagagtc ggacgagctt 360  
cgcttttagt tgaagtatgt cggaaatata atgaatttcg tcctgtttat atgaaatccg 420  
ttgtgtttgc attaatccg t 441

<210> 10374  
<211> 407  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-008-Q1-E1-D6  
  
<400> 10374

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gggtttttgt acattatctc ctgtcatggg taccctgtc tgcttgtcct tgggaaggat 120  
atacccctaa aatatgtgtt taaacacatt ttccctttca ttgttctgtt taatctgata 180  
atcacttttt cttttccctt gacttgttta acctttctca tgggttatat gatctaagca 240  
gtaataattc ggtgcttatg taaacaccct ggtgtacaac cttgtcagta agaccgtgtt 300  
actattgttg atgacatttc ggtaaccacc gatggacgag aactttgcct attggtccac 360  
ctcgtttcaa cgagcaggaa aatggttccc ttcgtcactc gcccttg 407

<210> 10375  
 <211> 394  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-D7

<400> 10375

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gggccgtcaa aatggtgaat gttccgaaga ccaagaagac ctactgcaaa aacaaggagt   60
gcaagaagca cacacttcat aaggctactc agtacaagaa gggtaaggac agtctgtctg   120
cccagggaaa gcgctcgttat gacaggaagc agtcgggata tgggtggtcag accaagcctg   180
ttttccacaa gaaggcaaaa accacaaaga agattgtgct gaagctgcaa tgccagagct   240
gcaagcacta ctcccagcgt gccatcaaga ggtgcaagca ttttgagatc ggtggagaca   300
agaagggcaa ggggacatct cttttctaga ctgctttcac ctatctggag tgggtggtggt   360
caagaagtat tactacttgt gttaagagtt tggt                               394

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<210> 10376  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-D9

<400> 10376

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gggcctaccc cgggggaccg agtccatgat attttccata cagagtgatg tctacagttt   60
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tgaatgggtt caaaactttc aagaatcaaa tgatatctct acaatagcag ataggagaat   180
gaccagtggc ttacccccac aaggcatgaa ggaattgttg cgcttggcat tgcggtgcgt   240
gaacccgaca agcgagaatc gtccgtcgat gagcctggtg gaagctgaga tacaccggat   300
acgcaagcag gagatcagga ggacgacagg catgccactg ggcgacacaa ctgtgaccct   360
atgcagccag ctcttcacat cagcaagatg gaaaaacatg ggaaat                               406

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<210> 10377  
 <211> 360  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-E10

<400> 10377

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ccttacaaaa aatgccctga atatccatat accaatcata gcacgttctg gtatacaacc 120  
tcttcagaaa ctcatcttgg catagattta tcaatcataa cgttggaaca ggggagaaca 180  
tcccggtgggt ccaacaacag attgatatac gtttcacacc tgttgacaac atgataaaaag 240  
gctgtgcaga gaagtttgct atggcgagat gaagtccact ctggcagacg tattccttgc 300  
accccgatt tttgctgcag tgaatcgttt tcagatcgaa atctcaaact atcctatgct 360

<210> 10378

<211> 402

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-008-Q1-E1-E11

<400> 10378

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tctcgatgtg accacaacgg gctagtgaca ggggtgtctc cgacgaggac acacaagata 180  
ccaagcattg atcacgggggt agcctggcat gtgagcgag aggagaccat ttcaaattgc 240  
tttaccatct atggagccaa attgcagtct ggtgatgcgg caatgggcag actaagtttt 300  
aatactaaag taggatgtca ataaaagcac atcactaaat atataagata gaataatcag 360  
ttgtaatttc taacatgtan ttttcaaaaa tacatgaatt tg 402

<210> 10379

<211> 457

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-E4

<400> 10379

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taatacagta gatgatgggt tgccataaat gacaaacgcc taaatccgat gttatgagtt 120

gcttcgtttg gggctgattt g gatggacat gtttcatgcg aagggttaagt ttaccatcat 180  
acttttggtg taattgcgga tgcttgcaat agagggttagc cataagtgcg atgcatgtcc 240  
aattaacgac atcacgcagg caccggtcca cccacatgac catcattacc aatgtaacga 300  
atgcgaatca catgaatgtg atgaaaacta gcatgacgat atttctcatgt gtccacggga 360  
gcacttttca ctatataaga gtttgtcgaa gcttgtcctt ttctacagaa tggattggga 420  
cagettgctg cactttaatt acttttgta catgttc 457

<210> 10380

<211> 256

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-E8

<400> 10380

gccaagatcg tgggcaagac tggcgacggg caagtgcgga gttcttacca ccaatgcatc 60  
attctgggag cagcacgaag acggtaactt ccacgtgccg gactttcggg gttaagtcct 120  
ccccacaact gggccgttca cagtatgaat tcagaatgtt ctactgggtcc tcgtttaaca 180  
ttccgctgctc ttctgcattg acacacattg tacgcctcat cctcctaacc cctaaacatt 240  
ccatgggtcac atattt 256

<210> 10381

<211> 402

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-E9

<400> 10381

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agcgtatcat ggaaagtgtg ttccaacaca tgttaccaga ttgttctctg agattatatg 120  
ggtcacctctg gatcaaattg gggttcaacg tttcggatac atacattgac attcaatttc 180  
caaccattat gtctcacca gatgttctct tacttgtcca agaattgtta aacaacaatg 240  
actcatttat tgatgttgat gcaaatttcc atgctcgggt gccaatggtg gtgtgcagag 300  
aaaagcagaa tgggtcttctt tgtaaaatga ttgcacgaaa tgaaaatgca tgtctgacaa 360

caaatcattt aactgccctt ggaaaactac aatcaaactt gg

402

<210> 10382

<211> 301

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-F10

<400> 10382

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aagaaggaga tgtcactcat atacatccga atcggaacct ttacacatcc tgttttaggat 120

tttgctttgt tgccattagc cgctacaacg acgtgtctaa atcctgatcg gaaagtcaat 180

tcttttaaata tttctagtga aggcaagaag ttgtcacgcc gcagcggtaa cagcaacatc 240

gcccctgtca tctacaacca ccgcctagac accacagtga cgaatccgta tccaggatta 300

a 301

<210> 10383

<211> 467

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-008-Q1-E1-F3

<400> 10383

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attccaatca cttctctttt tgaaaaagtt tttaggcata agaagcaagt attttttttg 120

gtattttcat tttgtaaatt ttttgtttgt ttcaccacaa actaaacaaa aatagaaggg 180

aagacaaaaa ctacttagtg aagaaagcaa acaagcatac acgaaaatat caacctcacg 240

ctattgctcc ccggcaccgg tgtcagaaaa gagcttgata atcccgaagt gcaaggaatc 300

atcatagcaa tttccaaagg tggaagtgat aagtatggag tgtcgaaccc acaaagagct 360

aaaggtgaaga tcaatattct cccaagtcct atctgccacc gatacaactg tacgtacacc 420

gaacgtttgc tttcatctag aaacgagaaa tacaactaca ttgtggg 467

<210> 10384

<211> 474  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-008-Q1-E1-F4

<400> 10384

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 atgtcttcac aagatgtacc actatcttct tcaactctcaa aaattgtgag ttttcaacac 180  
 tacaacaatt caatacccca aagaaagtta tgggaaaaaa atatagaaag tctagagagg 240  
 ttggggacaa aaggatttct gtaactcagg ttctcacatc aatcgagaat aaagcccaga 300  
 agttcaattt gaaaaagcgg agcagtttga tatctatttg aaaaatcata tttttctagt 360  
 tactaaagaa taaaatcaat aagttcaatt tcaaataaca aagaagttcg atgtttctaa 420  
 aaaacctact atttttcaaa tttataaaaa tacacaatga agttcaaata aaaa 474

<210> 10385  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-F5

<400> 10385

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 agaaggacga cggcaagaag gagccgaccc ctgtgtaccc gccgtggtac ccgccgccgc 180  
 cgccgtacca ctaccactcg caccctact accacggcca cagcgcgcgag gaggatccca 240  
 gctcctgcgt catctgctga ccgagtgcac gttcagtagc tcgccgtcct gcctgccgat 300  
 cgatcggctt acctgcaccg gtgatggacg gcgttcgtta tatacatgac atgaccgtgt 360  
 aggcggtgtac gttgcgccgg tgatccggca gctgtgcac tggttatgct tagtttgtaa 420  
 cgtgtacata cagaattaca gtatattgtt cac 453

<210> 10386  
 <211> 459

<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-F6

<400> 10386

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agtttttcgt agtttagatc gagtctgttc ttcataccta taatccacga aaaagccaaa 180  
aaaattaggg ttagttcatc ccatccgaac caatctgagc cttgcataat cttttctgta 240  
tttgctttgt tgaatttgcg gttgcatcgt cgtgtccagt tgctgggtctt agcgtctagt 300  
cttttagagt ttcgagttct gttcacaggt tgtcacgtcg ccgctggcat atatcaccac 360  
cgcatcatca tcgtcgtgtg tgccatatac caccaccaca tattcaccgc caatccgaat 420  
ccatatatgc caccatatat ccgccgccat caggccaat 459

<210> 10387  
<211> 437  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-F7

<400> 10387

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ttcagcttct acaactcgct atagactgcg ttgccaggt ccagacgcc cgtccgacga 180  
tgtcccatgt cgttgtgcgg atcgaggaga tcaagatgtc aggtggaagc accgaagaaa 240  
ctaatacaaca acagagcacc ctgatctcta atggcatgag agaaaggagc cggctgcctg 300  
ttgctgtagc ccatttcatt ccgttcatag acttgacgaa tgctatcttc ttcgacggcg 360  
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cttggtgttg ttgactg 437

<210> 10388  
<211> 419  
<212> DNA  
<213> Triticum aestivum



<223> Clone ID: LIB31-008-Q1-E1-G1

<400> 10388

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caccgctgcc tgctgggaga agatgctccc cttgaggaga tagatatcca ggctcatcgc 180  
actagacgga gccatgtttt ggccccaagt ttcctgaagt gtagtgctgc ttcagccgtg 240  
tctttctgcc gtgtcgctcc tcaaagttag tggtaactta aaacgtgtta tatatgtaga 300  
tgtttgattc ggaggacatc ggggtattct tctgttctac tatctgtttg atctgcaacc 360  
ttctgcatat gacaaggatg tatgcagatc cactgctagc tgatgttaaa catgttctg 419

<210> 10389

<211> 355

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-G10

<400> 10389

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actatgatcc gcaaaaggac aagcgtttca gcggctctgt caagctgccc catgtccctc 180  
gccccaaagat gaggggtctgc atgctcgggtg acgcccagca tgtgggagag gctgaaaaga 240  
ttggtcttga atccatggat gttgaagctc ttaagaagat gaacaagaac aagaagcatg 300  
tcaagaggct tgccaagaac tatcatgctt tcttggcctc agaggctatc atcaa 355

<210> 10390

<211> 245

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-G11

<400> 10390

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cgatcaccg gcgctgtcaa cctgatccat gtcccacgca gcaggatcac ggtctgcatg 120

cacggtgacg cccagcatgt gagagaggct gaaaagacgg gtctatgatg ccatgcatgt 180  
tgaagcgctt atgacgatga cgaactccga gaagcatgtc aagaggcttg ccaggacgta 240  
ccatg 245

<210> 10391  
<211> 449  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-008-Q1-E1-G2  
<400> 10391

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atcttctagt tcagatgcaa accagggtcc aaaccatgtc agagaacatc atcacgaaga 180  
tagatgaaat ggggtgcaaga attgatgaat tggagctgag catcaatgac ctcaaggctg 240  
aaatgggcag cgatgggatg acccctacta aagtgaagga cgaagaatca aagccagcag 300  
acagctcttc ctgagtgaag cagaagtagc agaagcaagg cgtattagtc ttgggtccat 360  
gtcgatatca tcagccattc atcactaact tactgcatgt tatgagatgt tatttgcact 420  
gttatatgca tatgagatat acagtacct 449

<210> 10392  
<211> 454  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-008-Q1-E1-G3  
<400> 10392

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tgggtgcttga gctttggcgc tcccggcgga cagccggctt gcagcgccgc cgcgccaccg 120  
aatcctctgg ccgaagggcg gccaaacctc ttctctctag ccttgaagct atatgggagg 180  
cagtgtact ctagatcgat gttcatggct tgctgcggtg aagaactcgt cggaccaagt 240  
ggatgatgtc ccggagccgg cgagtttgga gtcgatcggg agtggcttgg acctgattgc 300  
gttctcttc agatctttgg ggtcctttct gcatatttca gggactgctt tgtaattttc 360

agtttgttgt gtgtcctgtt gttctggctt gtactacggt attgtaatat caaataaagt 420  
 ctggggctct tttggaccct gcccttggtc aaaa 454

<210> 10393  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-G4

<400> 10393

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 ggggttggac atgcaattgg gctgagcaaa ttgggtgtcg gtgttcgagg tgtattcggg 120  
 tgggtgctga tgtcaaagat ggacatacac ctaggtcaaa cgggttgtgt gttagagttg 180  
 gacaaacaac tatatgcata taccgggtcg agcacgagtt gcgtgtcaaa agtggacatg 240  
 caactagatc ggacatgagt tgcgtgctaa tattgaacgc gcaactaagt aagggtccgg 300  
 ggaatttgat gatagacatg taactgacac caccacaaaa taaagaattt aaaaaatcat 360  
 gaatgttttg aacacagccc agcttcttca attctgcccc tacaaaa 407

<210> 10394  
 <211> 472  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-G5

<400> 10394

acgcctgcct agtacggtcc gacattcccc gggccacttc caccaaagca aaatacatca 60  
 tctcatcgaa agacgggaca cctttgcctc tatcaagtgg tatcagtttt caggttgctt 120  
 ggtgagattt tacagttttt tgtagtttag atcgagtctg ttcttcatac ctacagtcca 180  
 cgaaaaagcc acaaaaaaaaa ttagggtttag ttcatcatat ccgaaccaat ctgagccttt 240  
 gcatagtctt tttagggttt tgctttgttg aatttgcggt tgcacgtcg tgtctagttg 300  
 ctggtcttag agtctagtct tttagagttt cgagttctgg tcataagttg tcaogccgcc 360  
 gccgcacat catcatcgcc cctgccatct accaccaccg ctccaaatcc gtatccatat 420  
 accaccacca atctgtgtcc atataccacc accaatctgt gtccatatac ca 472

<210> 10395  
 <211> 346  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-G9

<400> 10395

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 attctggaac acgaagataa tgatagggtc ctcgtgcctt acgttcccca ctaagtccctc 120  
 cactcaatcg gggcgtagca tatgaactcg tacatttcga tcaattttct tttaaaattc 180  
 agtgtcttca gcagtgacat aagttgcatg cgcaacatca taagcgtcat atatttcatg 240  
 gtcacgtatt tcgacacgga gcatcagtcg atcgtagact acacatttgt caacaatggt 300  
 catgatgatg ttctccccgg atacgctaaa tgtagatgga ccttca 346

<210> 10396  
 <211> 355  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-H10

<400> 10396

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 ccccaactcca acctgatttt tcgggggggtg tgtcgtcacg ctcacctatt ggtcaaccat 120  
 aaccatccca ccctgcataa atgctgttaa atggttgtgc gtagtatata gttgcgccac 180  
 caaaactctc agtcaagtt ctcgtctaag ccgatgtct tctcgactt cctctgtctc 240  
 tctggcgcat atgtcgtcgt cctcgtcgcc aacgactcgc atttcccttg tgccggtgtg 300  
 gaaagaactc tggtcctgtc gtcgtcggtc tactggcct tggcttatcc ccttc 355

<210> 10397  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-H11

<400> 10397

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 aaaagatcca aatcgtagac gaaacaagca acgacttaaa ctaacaagag tcaaaaccta 120  
 acaacattat taacatgtga attagatctt aacagaaagt acaagtgatc cgctacgatt 180  
 cgcaaagaga ttcaactcaa acggagcaag aaactcaaaa tacgaacgaa ataagatcgt 240  
 ttactaattt ggactgatgt caaatTTTtac attacaaaaa tcatgttcat gttgattaaa 300  
 tgaaaagagg gcttcaagac gaaaattttg gcgttggttt caactaattt ggataaacga 360  
 gtaaaaagtt atactagttt gaaaatcagg ggctgaatcg cgataaaaaat aatcgagat 420  
 aagtccctaa cg 432

<210> 10398  
 <211> 247  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB31-008-Q1-E1-H12  
 <400> 10398

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 ggacagagag aatgtcccc ctctggctc tggggatcct ggtggctggg ctctgcgcca 120  
 ggggtccactg tctcccagag aatgtgtctc gagaagaaca gcacagagtg acatctgtgg 180  
 atgggcactc attaccctcc accaactg acttctcctt cagcctctag aagcaatttg 240  
 cttttttt 247

<210> 10399  
 <211> 397  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB31-008-Q1-E1-H2  
 <400> 10399

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 gcacctgtct catttgccg aactagcctg gtccaacaca aacggtgagg atggatgacc 120  
 cgagatcatg cggcacgtgc cgcgctgag acggtgcatg taggggcat gaaaagcacc 180  
 acataaagct gtgccgagcg cgcccgggc ccatgtatca tggagcttga ggaaaatcgg 240

tcgggtgtga ggcagcctca atgattggac gacatggagc gtgcccggga ggcatcggcg 300  
ggaggcgcggt gtgaaacgga caacatggat tcactctcac gtctcacgtg gcgatgcccc 360  
aaaaggtggg tacttcaaca tcctttacat aagtaac 397

<210> 10400  
<211> 426  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-008-Q1-E1-H3  
<400> 10400

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gcctctatca agtggtatca gatttccagg ttgctcgggtg agattttgta gttttttgta 120  
gtttagatcg agtctgttct tcatacctac agtccacgaa aaagccacaa aaaaaattag 180  
ggttagttca tcatatctga accaatctga gcctttgcat aatcttttta cggttttgct 240  
ttgttgaatt tgcggttgca tcgtcgtgtc tagttgctgg tcttagagtc tagtctttta 300  
gagtttcgag ttctgggtcat aagttgtcac gccgcgcgcg caccatcatc atcgcccctg 360  
ccatctacca ccaccgctta accggcaccg ctccgaatcc gtatccatat accaacaacg 420  
atccat 426

<210> 10401  
<211> 403  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-008-Q1-E1-H4  
<400> 10401

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gcttatattc tcgaccatgc agttggtgat cgtgaatcgg gccacggtgt tgggttttct 120  
ggtgtgcctc ccacagcatt agtccgaagc ttacataggg gaaagagctt caagtttgga 180  
tctctgcaga tgtttatgga gaacgatgga agttgcgagg atatgggtcc ccgtgctttt 240  
ccagtgaagg aggtacacaa aatagcagtg ttagatatta ggtagcgaa tgctgatcgt 300  
catgcaggga acattctagt gtccaaggaa gaaggtgccca cctgcaagct gattccaatt 360

gatcatggct actgcctgcc agagaagttt gaggattgca cct

403

<210> 10402  
<211> 460  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-H5

<400> 10402

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taacgggtgg ctgcaccagt atttcgagtc agttgtttcc atgtacgagg acaggtttga 120  
gttatatgtt ctatgcagaa gatcatgcaa gaacacagca gataatcggc ctgataaaac 180  
taattggttg actaatgcat ttcgaaagcc ttcgacatct actcgcctgg attatgtttg 240  
cataagccca ttttctcttc cagttagaag gacaaaggag ctaagagctc tgactgggtg 300  
gaggtattac tacagccttt tcttgagtt gtcggatatt gcaatgcctt ttgcatgggc 360  
agtcgtggct agagtcagcg ctgcggtgtc ctacttctgg gtgtccaatg ataggagaat 420  
cttggggctc aatttttctg gtataaggca atcgtctgggc 460

<210> 10403  
<211> 359  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-H7

<400> 10403

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atgtgagctg tgcagaaaga agtcatgtcg ttttatactg aatagtacat atgcttgaga 120  
tatgtgattt cgtcaggttt gcgtaggctg cataaaacag tagttcacga ggaaagggtg 180  
taggcaagta agagaccatc gatatgtatg tgtggagttt ttttttacct aaagattaag 240  
tttttcagaa tttcagattg aggcctccat ggaacttgcg ctctaataagg gattgcctat 300  
gcatgttggt actttaattt tagacctttt ccctaacaag tccaaatgtc gcaatcttt 359

<210> 10404  
<211> 370

<212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB31-009-Q1-E1-B11  
 <400> 10404  
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 tttgcctcta tcaagtggta tcagattccc aggttgctca gtgagatttt acagtttttc 120  
 gtagttttaga tcgagtctgt tcttcatacc tacagtccat gaaaaagcca caaaaaaat 180  
 tagggtagt ttatcatatc cgaaccaatc tgagcctttg cataatcttt ttagggtttt 240  
 gctttgttga atttgcggtt gcacgtcgt gtctagttgc tggctttaga gtctagtcct 300  
 ttagagtttc gagttcgggt cataagttgt cacgctgccg ccgcaccatc atcaacgccc 360  
 ctggcatcta 370

<210> 10405  
 <211> 386  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB31-009-Q1-E1-B9  
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 ttttaaagaa gattaaaaaa ctggatctgc cgctattgaa agtacttta ttagcggttg 180  
 taattgaaga caaacgtagt cgctacctgc aaggctgcaa cggctggcaa cgattctatc 240  
 cagcgtatgg tcacgggttt gaatccatcc gtcgctgcaa tttttcgtga cattttctat 300  
 tatgttcgct tgtcgcctgg taaagggccg gccggtttgc gcgaatcctg cagcgaaagg 360  
 tgttcatttt gacgctcacg agtgtc 386

<210> 10406  
 <211> 409  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB31-009-Q1-E1-C2  
 <400> 10406



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 gcgagttctt acctcgaagg cgtcattctg gcaaaccaag ataaggataa cttcctcatg 120  
 ccttactttc ccgagtaagt cctccctca accggcccggt aacatatgaa ttcttacttt 180  
 togatcgttt ttcttttaac attccgtgtt ttctgcagtg acacacgttg cacgctcatc 240  
 ctctaagcc ccaaattatc catggccacg tatttcgacc cggaccgtca ctggaacgta 300  
 gactacacaa atgtcaagaa ggttcttgat gatgttctcc ccggctacgc ccaatctgga 360  
 ggcatcttca ccaggcctat tcgtaagtac ggcaagcacg tgttctccc 409

<210> 10407  
 <211> 288  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-009-Q1-E1-C5  
 <400> 10407

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 ggctcatggg agtcctaaag aaatatgttc gtaaccgtgc taggccagac ggaagcatct 120  
 ccatgggcca tcaagcagag gatgtcatta ggttttgtgt tgacgtcagt cttgacctta 180  
 agaagattgg tctccctcag tcgtggtatg aggggaaacg tactagaaaa agcacgctat 240  
 gaggggactc aacaatatgt ggggacgtgc attcctgggc tcaagcac 288

<210> 10408  
 <211> 222  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-009-Q1-E1-C6  
 <400> 10408

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 cccgcaaggt gaggaaggag ggatcagaag ccataatctc tcacctcgag cccctgtaca 180  
 tagcggattc aggaaagacc gaactgcccc ctgcatccaa tc 222

<210> 10409  
<211> 439  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-009-Q1-E1-C9

<400> 10409

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atcgacagca cagtgcacac ggaagaggag agtaataatc ttttttttg aaaaggatgt 180  
tgaaaccccg ggctctgcat caatagatgt acaccgccat cattattaaa ttattcaaca 240  
atggtctgag aagaacatac atcaaagac tgaaggcac cactcacgcc taaaactcg 300  
ttaataagga tccatcgctc nccaccgttc agaatcggtc tcaccgtcta ttcgtccgca 360  
aacataccac acaggggagg agccagaatt tgaacatgag tggggtgaaa agccaacttt 420  
cacaaaagtc acgaaacat 439

<210> 10410  
<211> 393  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-D4

<400> 10410

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ggggacaaac ttggtctctg tgtgcttacg atggagtcac gcatttgctt tgagaactgc 180  
tagcgtgttt aacctgacag cgctgtgaat tgtaggcctt ttcagcatat ttcacagctt 240  
gttgtcttat gaagtgtgc acggcagcag gctgggttat gcctcctcgg tcattaatag 300  
catttgtaac ttgtagagt gcacattaat ctcagatga catatacata atacttatgc 360  
tgactgttat tgtaacgacc tttatgcctt tgc 393

<210> 10411  
<211> 394  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-009-Q1-E1-E12

<400>       10411

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gcgccgtaca taccgtgctc atggacgcat caatccttac atgtccaacc cctgccacat  120
tgagctgatac ttgtcagaga aggaagagcc agtgaagaag gaggctgaca acgtcgtcgc  180
accaaggaaa gctatctaag ctaacggagt ggctgcattc gtccaagaat cttagttgta  240
gttcttctca agtacctttg ttggcagtgt ttgttgcttc cttgatgttt ttgttaccaa  300
catggagtaa ggatttgta atgttgatgt tacccttggtg attgcgactg gtccctatat  360
gctagaacag gtgcgagtag ttgagcatta gccc                                394
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<210>       10412

<211>       371

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-009-Q1-E1-F1

<400>       10412

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aaaggcccggt agaacttaat cacgtactag tgggctagcc caataacggc ctgcttaata  120
aaagcccattt tacggccoga aaccagatct ggaccgttaa atgttcgccc aatatttggg  180
cccattttacg aaccgaaacc agatctagcc cgttaattgt tcgccaataa tttgggcca  240
tttgcgggcc gaagccaaat ctggcccggtt aattgttcac tgaataatcc ggcccaacta  300
cagcccaacc ccgaccaatg tgaggaaagg atgatggaaa ctatgattcc ctcacaagtt  360
gggatgagac t                                371
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<210>       10413

<211>       158

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-009-Q1-E1-F3

<400>       10413

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 gtgcacgact actactccca cgtcgttcca gccaccatca acttcagctc ccatggagac 120  
 tgtcatctgg gcacgggaca tcgagcgcaa tcggatac 158

<210> 10414  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-009-Q1-E1-F6  
 <400> 10414

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 agagctttcc accagccaaa tatgcatata gtatagctgt tgcattccat tactctctat 120  
 gtgttacctt gccagcatat tccatgtgct gaccggtttt caggctgcaa cgtaaatgtt 180  
 gcagactttt cagacgatga ttaaggagtt tttaggtcgt ggttctatac tcagtgatgc 240  
 cgttggagtt gatggactca cttatcttcc aagccttccg ctgttatcgt tattagatgg 300  
 gcttaagcca tatttattgt aatcagttct ctcttgagac actccgatgg tataagtgtg 360  
 tgattgctac tctgctataa atccttagag tactgtgtg 399

<210> 10415  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-009-Q1-E1-G1  
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 cagtgtaagg acaagttcct agttcaaagt gttgcagctg agaatgggtgc agcaactcaa 120  
 gatattagtg cagcaatgtt caacaaggag ccaggggaagg ttgttgatga atgcaagctg 180  
 cgtgtaattt atgtgccaac atcttcacct agcctgttct ctgaagattc agaacaaggg 240  
 agttctgctc gttcattgga aaacgggact cctaattcta cattgccaca atctgtattt 300  
 agatcatctg ggtaagcatc aaaggagaag tcctgggagg caacatccat gatttccaag 360  
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gtcctacgca aagagag

437

<210> 10416  
<211> 395  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-009-Q1-E1-G2  
  
<400> 10416

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tcactaaacc atgtacaagg taatgatttg ggtgcgggat ggattgatca ccataccgac 120  
ttactcttat tatttgcctt gctatatggg atggtaaata tgagtgcacat acctatagta 180  
gagcgccgac gatcaaaacc ttgtttaagc cttagaatgg tataggaatt tttcccttgt 240  
acaaggcagc ttttgccaac cataggttat acggtgagga tcagcccaga cccatttcct 300  
ggaggagaag ccataaatgg ttgaccacca tgagatatca agagttgttt agtactgacg 360  
ccagaccgt caactaggaa gaccagtcct cggaa 395

<210> 10417  
<211> 410  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-009-Q1-E1-G3  
  
<400> 10417

gggtcgacac ccttggggat tctggatcat tggagttatt tatagagcaa agaggtggtg 60  
tgggaggcca ccgaggctgg cacaaccac cagggcgcgc ttggggcccc aggcgcaccc 120  
aggtggggtg tgcccccttg gggcaccct ttggtacttc cttggcccaa cttgtgtctt 180  
ctggtccaga aaaaatcacc aaaaagtttc actgtgtttg gactccgttt ggtattgatt 240  
gtctgcgaag taaaagacta gcagaggaat agcaactgac actgggcact atgtcaatag 300  
gttagtcca aaaaatgata taaagttgct ataaaatgat tggtaaacad ccaagaatga 360  
caatataaca acatggaaca atcaggaatt atagatacga tggagacgta 410

<210> 10418  
<211> 427  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-009-Q1-E1-G4

<400>       10418

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gggtcgacca tgctcttcaa gctgaagctc gagctcttct ccaagcgggtg caaatcacct   60
catcaatggg gtgtaatcag gtgattctag aaatagattc gactgtactg aagaatgcta  120
tcacatcaag cgagtatgat ctagcgccgc taggtattct atctagagaa ataaaagcca  180
tgttatgtgt tactccctcc gtttctaaat atttatcttt ctagacattt caaatgacta  240
acacatacgg atgtatgtag acatatttta gagtgtagat tcactcattt tactccgtat  300
gtagtcactt attaaaattg ccagaataga caagtatttg agaacggaag gagtagtttt  360
aaaggcttta caagatcggg tgtaccaaga tcatgtaaag ttggtactca tgaactagct  420
gcgcgtg                                           427
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<210>       10419

<211>       439

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-009-Q1-E1-G5

<400>       10419

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ctcgcgggtc gacacggttc acgacagtgg ctacacttag gtgcattggc atgcttggaa   60
aagggtggatg tgctacaggc tgcgcttggt gctccatgc atcgtgccac gccgtgccta  120
gtttatgtgc aatatcgctg ggtggcggga aacaggtgag gaaatggcag gaaatagtgg  180
cgtgttcaat taatggcagg aaacaacatc aattaatgga aacatagcat atataaggaa  240
tatcgagcta gcacaagaag tagatgatga tgagatgaac acataccaca ctaaggaacc  300
catcggtgaa gaattcatca atcccaaag gttgtacact agcaagcatt tgcccacaac  360
acacacgggt tatcccatca cagacaggtc agatggatta actgtatgcc atgtatacac  420
attgttcaaa agtaatgca                                           439
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<210>       10420

<211>       422

<212>       DNA

<213>       Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-H2

<400> 10420

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acttgtgtgg ggccaaagaa ggttttggct ccagcgtgtc tggccatctg ccatggtaca 120  
tgatataact gaagttacat cgggtccactg actggacata aaaaagctcg caatggatgt 180  
caatcgaggt ccaagtcgtg gtggctcatg tttagagtgt gcgaagagag cccagtcaaa 240  
cacctctgca actgcgtggc tatgttccaa cattttgtgt catgcgccat cgccatcgcc 300  
atcgccatcc agttgtaaca aactctgtgt ctataataat aatagactgc tttgggacat 360  
aataggcgag agctaattca gtagggagag gctaggggtg acgtctttcg tcctttcctt 420  
ct 422

<210> 10421

<211> 142

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-H5

<400> 10421

ggtcgacaca actcccgaag atgcttcac taatggcaag gatgggtgcg gccaacgccg 60  
ttcgaacgcc ggaagttgca accctatacg ctggagctac aaccggcgac tgggggagct 120  
gccggagggg tcggggtttt tt 142

<210> 10422

<211> 415

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-H8

<400> 10422

ttcgcgggtc gacataaaat aataaccttc gccagacggg cacaaccac ccagttgata 60  
ccctgctcct ctgaacaaca aaaaaacat cgctcaagaa aaactgtgct cacacctcag 120  
aaacaaaaat actgctagat ctgctgggtc ccagttgtcg gccgctcctt gtgcaattct 180  
ctcgtttatt gactatatag gttgacgatg gtgtgggacc gtgatgtcag gaaaccagga 240

tgaagcaaaa aaattatagt tgtatataat aaggacgaac ttgcgtacat acggctatgg 300  
ccctgggtggg tccctactgt catccttgcc aagtgatctc ctgattcctc atgttcgttg 360  
accatgttta aaatgctcgg tgccacggtg agcgcaacaa ctcgaaggac gacgg 415

<210> 10423  
<211> 273  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-A3

<400> 10423

tcgacacatc ccactagagt gcgtcgtatt acgggtccct cacaatcatg aagactatga 60  
ccgactttat tacctatata tagctctgga aggagcacac ccactccgat agtcgtgtta 120  
gcggccctga tctcggggga atgtatcagc agatgcatgc attttcacgc catcatgagg 180  
atgcgacagg agcaaccgat attgattaca ccacaccag tagatccagt gaacacttag 240  
ctgcagatga ttccaatctt gatctacaga act 273

<210> 10424  
<211> 338  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-B12

<400> 10424

gtcgacttcc atcaaagcga tattcatcat atcatcgaaa gacgggacac ctttgctct 60  
atcaagtggg atcagatttc cagggtgctc ggtgagattt tacagttttt cgtagtttag 120  
atcgagtctg ttcggtcata cctacagtcc acgaagaaag ccacaaagaa aattaggggt 180  
agttcatcat atccgaacca atctgagcct ttgcataatc tttttaggat ttttgctttg 240  
ttgaatttgc ggttgcacg tcgtgtcaag ttgctggtct tagagtctgg tcataagttg 300  
tcacgccgcc gccgcacat cgtcatcgct ttgccatc 338

<210> 10425  
<211> 386  
<212> DNA  
<213> Triticum aestivum



<223> Clone ID: LIB31-010-Q1-E1-B2

<400> 10425

tacgcgtcga aattccaggt cgaccgctgc gagaaagacg acataatggg agaacgcaag 60  
agaacatgtc tagaaaggct gctggcgagg agccgttgcc agaagaagat ccatccaacc 120  
ctatcttcaa gccgcttcct gagccatccc gcttagaggg ttatctcgta accaatcaga 180  
tctcgagcta ctgcaaccat atcaatgggg ttgctggcca cagtttcaac aggctatact 240  
tgatgaaggc gttgcaggaa gattaggtgc cgggtggcag ctgctgtgag attttaactt 300  
gacactgtac cgcacctcaa ttttgcaatg tactccatgt gcacacgcac attgcctatt 360  
ttgttttgct caaaaaaaaaac cgaaaaa 386

<210> 10426

<211> 422

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-B3

<400> 10426

gcgtgcggac cctacgggtt cgagaactat gtagacatga ccgagacatg tcttatgtca 60  
gtaaccaata gcggaacctg gatgctcata ttggttccta catattctac gaagatcttt 120  
atcgggtcaaa ctgcataaca acatacgttg ctccctttgt catcggtatg ttacttgccc 180  
gagattcgat cgccggtatc tcaataccta gctcaatctc attaccgaca agtctcttta 240  
ctcattccgt aatgcatcat cccgtgacta actcattagt cacattgott gcaacgctta 300  
tattgatgtg cattactgag acggcccaga gatactctc cgacaatcgg agtgacagat 360  
cctattcgcg atatatgcca actcaacgaa caccattggg gacacctgtt gagcaccttt 420  
at 422

<210> 10427

<211> 298

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-C12

<400> 10427

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gaaataatgc aagcaccagg acttgaacac tgggtgggctg gggataccac tgtccctcta 120  
accatccaac cacagggttag tttgcattag aaaaagggtt ttgacatata cagaaaatgt 180  
agaatgaaaa caaagtagaa ccaagaacat caaaaaatgg gaacacaaca agagacaaga 240  
caaacctaac gacaatgaat acaaacaaat gtggaaagaa gaaaaatgga gtgaaaac 298

<210> 10428

<211> 395

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-C3

<400> 10428

tcgacgtcga ccactacaat gtctaccatc tacatcgatc gacgggacac cttggcctct 60  
atcaagtggc atcagatttc cagggttctc ggtgagattt tacagttttt catagccata 120  
tactaccacc gggaggacca ccgctgccat ataccagcac cacatatcca ccatcaggct 180  
gagttctttg cttattaggt ttgttttcgg gatccatcta aattccgagt cgtgtttcca 240  
tgtcggagtc aggtagccac gtcctgttta tgcccaagat ttttcgaaaa cgcatttttc 300  
gaacaaattt ctggctatcc tatttttacg tgtgtctgag tgttttgaga cacgtgccac 360  
tatatgaagt tttttgtgac ccatttccag ttttt 395

<210> 10429

<211> 381

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-C4

<400> 10429

tgcacccgct tctcgagatc gaggcttagt accactatct gatggatcatg gtgctttgtg 60  
ttaggccatt ttttttagaa tcgcgttgga ccacttaact ttgccacaag gatattttgt 120  
ttgtaaagat gaggatatca agccattgca tgctatttac atatctagca tctaaatcag 180  
gttatcgaca tagttgcatc aatcagacta gcaaactcgtc actctggatg acatcaacat 240  
cttatcacag gatttaagcc ccatatggat gccggtatag ccacatgcat tgtcaagact 300

ctgtgtaagg gtgcaaacca aaggatagct aaccgtccat tatccaaagt cctagtatct 360  
gtcactagct ctaataacat t 381

<210> 10430  
<211> 333  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-010-Q1-E1-C6  
  
<400> 10430

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acttgagagt gccaggaagg agatcgccct gtggttcctt gagggcattg cacagtggag 120  
gagcagccag cacaactgga tctgtgaggg ggaagatgtg tcatgagtgg tttgagtgca 180  
cgtttcatta agcatctacc agactagtct ttggttggtt acagttttga gatttgatc 240  
ttgggaacct tgtttgtgtg aactgaagtt atctccttgt gcttgagcat gcaagcgta 300  
tctgctgctc tacatttgat atatggtatt gag 333

<210> 10431  
<211> 356  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-010-Q1-E1-D11  
  
<400> 10431

ggaaatgcaa attcgaagag gcgaacagcg cctatgagga tctcaaccag ggcaagatcg 60  
ttggccgagc tgtagttgaa atcatgtagt gctgactgct gacgagatga tcatgtgggt 120  
gaaaatctgg gtcaaacaga taagaatatg ccgcggcaac tccgcgaact cggtttgtgt 180  
tgcagcacgg tctcgctccc tgatttgtgt tggatgcaaa aaaatttgtt gattgaaaga 240  
ttattgtgct cacaaggaga tgtctgtctc agtgtgttct tctttccatg atacatattg 300  
tgaatattgg gtatacaatt tgcttatata gttctgcagc cagatttctg ggttct 356

<210> 10432  
<211> 450  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-D5

<400> 10432

ctcgtaggtc aacacaactc cctaaagtga gtcctaatat cactgaaaca accatggagt 60  
ctgggtccatg ttgtggccga gtaaactctt tgtccctcac ttgtgttgtc aagtgggtgcg 120  
gcaggtcggtt gttgggtggac tacataaaag gaaatagtga catacatggtt tctcgtgttc 180  
aagcagtttc ttgcaataat tgttatccgt gatataaggc atgcaactga catttggttaa 240  
atcatggtgg cgtagaaaa ctatttctac gtcttttcca cttctcagt acggctatag 300  
gacgaagacc tcatcccttc taggctcacc tgtgcttttt tttttggcga ggtaggcca 360  
cctgtgcttt gcactctgcgc tcaccacaac acagatacaa gtaacaggtg accaaatagc 420  
aagcagaaaa atccacagt atgccaggcg 450

<210> 10433

<211> 303

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-E1

<400> 10433

tgcacgaaag tccctataat gagtcttgat acctccgcgc tectcgccgt cgcctccaac 60  
atcgtcacaa ccatcatccg caaggctcat gcctatatca tggttcatct caacggttca 120  
atgcccattgt cattggtagg tactcacgag cctgcaacct aatgcgaact ggattccatc 180  
agatggccta acgcttattt ttacaagatg ctgaacgcca gcattgcttc catcctgtag 240  
tccaaactgt ccatcccaa gtcccgttc tacctcaagt tccaccattc aaatcgctca 300  
tac 303

<210> 10434

<211> 310

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-E2

<400> 10434

tccacacgac aggatgttga tcgcaagcac ctagtacat gcgtcaggga aatgcacccc 60

agtgctcata tctgccaaat ggcgatcgac attaccatgc gtacttgctg acgaaacctt 120  
 agccagcgtg agcacgggct cacaactccc tcgtcaatcc tgatctaagg aaccacacct 180  
 caggcgcaac atggggccatg cccttaacgt tcactctact ccttcattac tatgtgaacc 240  
 cgaacattca gatgcagacg atagttacgg aattcacctc cacatgaatc tgccgcacgc 300  
 gttgactcaa 310

<210> 10435  
 <211> 122  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-010-Q1-E1-E3  
 <400> 10435

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 tggaccatcg accttcacg ctgccccgtg gatccccctc gcgattgect gcaatcttct 120  
 cc 122

<210> 10436  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-010-Q1-E1-E5  
 <400> 10436

cacagggtccg agactcgcgg gtcgaccaga gttgcccggc ccgatccaac gcctcggtccg 60  
 acggcgctgc cggccggcga tggatatgga gaggagctcg ggtcttcctt gtgtatatta 120  
 gggcagcagt agttttagtt tgtcttggt tcatgccgtg gtctggcggt atgccgtggg 180  
 gatgcaaacc actggagctc tcgagcggcg tctggtggtg gcctccgtcg ttttctttct 240  
 tgccaccatg gtggtggaaa gtggaagacg ccggatctgg caagatcccc ttgaataagc 300  
 tcgttctggt gttgtggtgt tccctgatct ggagggcatc caactgctac tgcttggttt 360  
 ctcaggctac catggtggtg gatgagaagc aggatagttg cagaatcctg aagtttatag 420  
 gtcgagttcg agcatatcag 440

<210> 10437

<211> 343  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-E8

<400> 10437

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tgatgtgttc gatggctgaa ggagctgtga ctatgaccgg gtccggttct cacgtggaag 180  
gaaggacggg aacttgggtgc tgagacaatg tggtcgttac ctgtgttttag attcttgaag 240  
ctgggttctc gtacgtctgt taactagtct gctactctct tgctgtgaaa ctgggttcgc 300  
tttctctccg cgactgtaat tttatgccgc acctgtgatt tgg 343

<210> 10438  
<211> 409  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-F1

<400> 10438

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tcataaattc attcagcatc atccaggaca ttttcccaaa caaaaatgtc aagcttgtcc 120  
ctatctgtct caggagaagg agttcctccg cagtaagtaa tcctgttatt gtcttcacaa 180  
cacagtggcc acagctgcta ttccaatatt ccaactggca ctactctaac ggtcactagg 240  
gagctaaact aaactaccag tacgtactag tttatcccc atggatcggt gggtcgacca 300  
tactaatcac accaccagct cccatttcc tcaatcatca gggggaccaa aatgtcctgc 360  
cgcattgaaa gttgagacag ctagccgtga ctagaactgc agattacac 409

<210> 10439  
<211> 396  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-F11

<400> 10439

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gaacactgtc ggcacgcaca cggatccttc ccctgcttgg gaagaccatt tcagagctct 120  
ctagctagta ggactgcacg aggaatttag tgaggatgac tggaagtgcc tctgataagt 180  
tcaacagacc cccaaaaaac cttgaaacta actcagactt ctgcggtggg ggtagcgagc 240  
tattgaactt cgtaaaccgc cctggtgatg cccttatcct tcccgttctg gatggtagct 300  
ccacatcttg cccccctcat gcacctcata tccactgcc tgttgatcag aaaaataaaa 360  
acaataatca caagacagaa aactggtctg aaaaat 396

<210> 10440  
<211> 225  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-F2

<400> 10440

aggtcgacac agatcccaat ggttcatcat atcatagcac cctcaciaat gggagcctat 60  
acatactcca tccgtcaatc tccctggtgga tgctccatct tggaacgaga ctcccaccac 120  
cgctgcctca ggataggatt ccgtgaattt ctttgcacca tgggccacag gagcaggctct 180  
aggtactccc ggcgcgactct cttcgggagt atagtcacct tttcg 225

<210> 10441  
<211> 257  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-F6

<400> 10441

ctccccgggtc cacatgaacc acacaagtac gccggacata cccaagttcc gggctctccg 60  
cagagataac acccctaatc gtgccgatcg tggtttatac gtggatggta ctagcttgct 120  
cctagacttg ttttggggac gaatgaacac attccactgc aaacgatgag ccttcttctt 180  
gcatgtgtgt ctgagtgtat gccaaaagtc ctaccgtact ctctccgtac ctgtacgcct 240  
cccagggggt tttatac 257

<210> 10442

<211> 345  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-F9

<400> 10442

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cgaggagcct gaagcggcga aagagggcgt agttgtcacc tcgatcttca ggataacatt 120
aatgaaggga atctttttaa tcattttaga tagagatgag ttcattgataa tccgttgctg 180
tgtccagagg atgacgtcac ggcagtttaa caaaatttac aggagaagac atcatggtgg 240
tttacgagaa atataacgag atgttcacat aatttcttta agtattgaag attgacatga 300
atacgttcaa atcaatttgg agcctaattg tggggatata actac 345
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<210> 10443  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-010-Q1-E1-G3

<400> 10443

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gtccactaca tgacaattca ccattatttg ggcctagagg aaggcattgg gaagtaataa 60
gtagacgatg gggtgctaga gtgacagaag cttaaaccct agtttatgtg ttgcttcgta 120
aggggctgat ttggatccat atgtttcatg ctatggttag gtttacctta atacttctgt 180
tgtaattgcg gatgcttgca ataggggtta atcataagtg ggatgcttgt ccaaggaatg 240
acagtacca agcaccggtc caccacata tcanattatc atagtactga acgcgaatca 300
tatgaacgtg atgaaaacta gcttgacgat aattcccatg tgcctcggg agcgctttcc 360
tttatataag agtttgtcca ggcttgctct ttgctaaaaa aagattgggc catcttgctt 420
caacttattt actt 434
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<210> 10444  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-H11



<400> 10444

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ctttgcctct atcaagtggg atcagatttc caggttgctc ggtgagattt tagagttttt 120  
cgtagtttag atcgagtcgt ttcgtcatac ctagagtcca cgaaaaagcc agaaaaaatt 180  
agggtgagtt catcataacc gaagcaatct gagccttgca taaacatttc tgtaattgct 240  
ttggtgaatt tgcggttgca tegtcatgtt cagttgctgg tcctagcgtc aaatccttta 300  
cagtttcgag ttctgttcac aagttgtcac gccgtcgccg cagcatcatc atcgccctgg 360  
catcgaccac caccgctccg aatccgtagc catatgccag catcagtccg tgtccagaaa 420  
gc 422

<210> 10445

<211> 420

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-H2

<400> 10445

gtcgacctcc tccagcctcc acccgcgact gttcatccac tggctcctgt tcaccagcc 60  
tccatcgctg gctactccat gggctactgt tcaaccagcc ctctccacgg gctagtattc 120  
aaccaccct ccacgggcta ctgttcaccc agccctccac cggctactgc tcaaccagcc 180  
ctccacgggg ttgtcctgtt cattcagccc tccacggggg cttgttcac ccatccgaac 240  
cggctcgatc ggggtcttgt tcatccagat gtaacaccac tatgtcctgt tcatccaacc 300  
tcaccgggaa ctgttcaccc acccccagc aacgctcatt gttcatccat aggagcatc 360  
gatcggcttt agttatcatc agtagcgaag gaatcgctcg atcactcggg ttcagtaacg 420

<210> 10446

<211> 446

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-H4

<400> 10446

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gacttgggtca aaaggcagag gcctagccca tggaaagcct gttaatggcc tgttcgcata 120  
tagcccatTTT acaaccgcgt aactcatagc ctattacgac ctatccgaat taggcccagt 180  
agcgtcatct aggccgtcca atatgattcc agtccattgt aacttccggc ccatgtacgg 240  
cccatgacgt cttttggccc atatgtggcc ctttataact cttggcccat taacagccgt 300  
ggtgcaacta gcccgtaatg aacagtgtat cgctttatac ccattagtgg ccattattc 360  
cattgggcca tttccagccc atgttatctt tcaaccttcg cagggcccat ttattcttgg 420  
gctcatttca gcattcgggt tactac 446

<210> 10447  
<211> 456  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-011-Q1-E1-C4  
<400> 10447

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caaccaacag agtcaccgct catattacgt tgccatgcca taccagacat aaccgtccccg 120  
acggagaccg gcgacaaact catgcctacc caaggcagag gttttcctgg gttcctgccg 180  
gtatgcatgt aaggcacatg aggatgatta taatcacaag tatgatcatt tccaacagca 240  
tggaatcac taacatgcac ccatgcatat gatcatatca catgaaataa caagattctc 300  
caaagtgagg tgatgttata aatgtgtcat caaacacaca aaaatattat gccgggggttc 360  
agaatggttg ctttcaggtc atggaaaggc anggtgcatt tcaaactctt gaaatacttc 420  
tcctctcttc anaaaatcct atttttgaaa atataa 456

<210> 10448  
<211> 127  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-011-Q1-E1-C7  
<400> 10448

ctttcaacat tgcagcgttt taactctggg caagtcctg atgttgatcg ctaccaatgt 60

gtacaatcgt gagctggata tcgaaactgt tcaccttggt atcaactatc acatcccagg 120  
gtttcca 127

<210> 10449  
<211> 278  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-E7

<400> 10449

ccgtcattaa caatccagta gtcgcgagca gcgctcctgt cacaccacg atgcggggtat 60  
atccccacg tgtcgatgca ccacttagat gcataaccgc attgggggtg ttacaacttg 120  
gtaatcacag ccacccccga cttatgaccc ccccgcttga tcgaatcact gacgttggtg 180  
agtccagaac caaatgcctt gagtcttaag attatacata tccgccagta cgactctttt 240  
tactcctcat tcccttcgc gccctggcg acgcccc 278

<210> 10450  
<211> 330  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-F8

<400> 10450

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agatagatca aaacggataa ctttgaggtg gtttcgtagg ctaccataat ctattcgttt 120  
gttctccgct attaattgtc ctggagtgac tctttgttgc atgttgaggg attgttatat 180  
gatctatcta tgttattatt gttgagagaa cttgcactac tgaaagtatg aaccctaggc 240  
cttgtttcct atcattgcaa taccgtttat gctcactttt atcgcttgct accttgctgc 300  
ctttataatt tcagattaca aataccttta 330

<210> 10451  
<211> 438  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-G8

<400> 10451

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ccgtgcattg ccctttctca cctcgagagt tgggtgcaaac ttcgctgggtg catctaaacc 120  
ccgtgatacg atacgctcta tcacacataa gcctccttat atcttcctca aaacagccac 180  
catacctacc tatcatggca tttccgtagc cattccgaga tatattgcca tgcgacttcc 240  
atcatcatca tatacatgac ttgagcattt attgtcatat tgctttgcat gatcgcaata 300  
tagctagcat gatgttttca cggttgtcc tttttttatg tcattgctat gctggatcat 360  
cgcacatccc ggtacaccgt cggaggcatt catatagagt catatctttg ttctagtatc 420  
gagttgtaat attgagtt 438

<210> 10452

<211> 409

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-H8

<400> 10452

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taccacaatg ggggaggcgg cgtctctata taccgctat ctctcgcgag aggggagaga 120  
gcgttttggg agccgcatgt ggacaagttt caccgcatg atgctcaccg cgatgagcac 180  
agatctcttc tctgtgttgg tatattatat gatctatctc tacttgtgtt gtgtggacac 240  
actcactaca ctcggtctcg agacatgtgt tataatgtgc tatctctgtg ctctctctta 300  
aatctcagac tcttataatg agttgtgttc tcagactctt atgaggagtt gtattcacag 360  
actaaactcc tatagtgttc tatgagtctc tggttgatgt gtgcggtct 409

<210> 10453

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-B6

<400> 10453

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ggaagacgga tgacgcagtg ctgttatggc gctgacaggc agctgttcta cttcggtctt 120  
 ccgaggcaat ctttcatggc acatgcaatt gaaggatgg actacaagag tacagactgt 180  
 tatatatctg gaaggcgaaa ttttggggct gtatctgatt attgaatgac agacagttat 240  
 atacgagata agattcctag gtttgccatg acatataaga ttgtggcaag gccgtgctcg 300  
 ttttagagga catgggatac atacaggaag cagctgaaat tgatggtggc aagtctggta 360  
 tttagaagat atctcatgaa gtcattcatc aaacgtttgc gaacaaacca tttgtcatcc 420  
 tggacatg 428

<210> 10454  
 <211> 411  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-012-Q1-E1-C8  
 <400> 10454

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 aggatgcgtt gatctgcgcc gacctactca accaataggt caaataccag atattcaaca 120  
 tgtccataac cagggacacg actaatcata attagtttat acactctgca gaggtttgcg 180  
 ctcttttccc cacaagattc gatctcccc gttgaatttc tcgactgcc tgatgtttga 240  
 gaaatggatg atcgagacac agtctttcta aagagggtccc cttaaccgat agataggccg 300  
 gtacacctac aatcccctac atctgctagc ctatcatgga aaggtttccc acaacttact 360  
 caactatgcc agagcccata atggcttgtg gctgcacacg gaagtttcta g 411

<210> 10455  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-012-Q1-E1-D1  
 <400> 10455

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 caagacttac atcagatcct acatacatgc atattatcaa gaagggttg tggagttgtt 120  
 gcagcaagcc agctttgact cttggctagg ccaacctacg agactccaac ttgaaatggt 180

tttgcgtaca cgagtccact actcaccact tcaatacact accgaggatc cgcctccgtc 240  
 ttcctacgga agagccatcc tcggcactca cacttatctt gaggctttta gtagtttcca 300  
 tttacttgtc tatgaactgt ataggcaacc aagtagtcct ttaccgcgga cgcggctatt 360  
 cgaatagatc atgataaacc tgcanggggc a 391

<210> 10456  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-D6

<400> 10456

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 catatggtgg ggctcaacat gctatctgga ggagcttggg ctacggaaat ggtacgcaga 120  
 agaaaccctc ccatacagaa cttgttgctg tgcaagcaac agctggaaca attgctggag 180  
 cttgctcatc gattatcact acaccaatag ataccatcaa gaccggtt caggtaatgg 240  
 acaactatgg cagtggaagg ccatccgtca tgaagactac caggctgcta ctgcgagaag 300  
 aaggctggag aggtttatac cgagggtttg gaccacgctt tcttaacatg tctctgtggg 360  
 gtacatcaat gattgtcaca tacgagctaa taaaagact ttctgtgaaa cct 413

<210> 10457  
 <211> 358  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-E3

<400> 10457

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 tatgtagtag tggcctgtga tggcctgttg gactcctggg atgttggtgtt cctaagctgg 180  
 ttgccgcact tgggtgcctca gaacctttac tatcgaacca tctaatttgc tgcaaaaaaa 240  
 aaaaaaaaaa aggaaacgaa aaagatcggg aagaagaaca gaagagctaa aaagagggga 300  
 agcgggagga gagagacggg caggggagga ggcgcagggg cggtaggggg gggatatgg 358

<210> 10458  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-F7

<400> 10458

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 caacttttcta aaactaatgg cactaacaga aagttttataa ttttgctccg cgtccctggc 120  
 ccatgaccat tagtcctggg ttgtgccaca aaccgggact aaagggttgg tccttggtgc 180  
 gggcagagtt tagtcccacc tcgccaaccg aagggggctc acaccagttt ataagccctt 240  
 ccctctctgc ctcattgagc tcctctcaaa gtgaaaatag atgccctaata agagaaaagt 300  
 ttaacctaaa ttcatagtga atttctctga aattcataga aatttactag gaatttaggt 360  
 tgaattttct ctataaacgc atccattcgc attttttt 398

<210> 10459  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-F8

<400> 10459

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 aggaatcctt ttgtatgaat tgctcgaaaa gtttttggg gcgatttgg gtctaccttc 120  
 agagactgct cgcagacgag agctcatgta tgaggcccg gggcgtaaaa cagggagtct 180  
 tagctggaaa cccggttggt gtttttttagg agctacatat ttttataacc tgttaaaaat 240  
 agaaaaatat atatttttta aaaaaaattg ttccttatgt gttatctcat aatatataaa 300  
 cgttcggtgt atataaaaag ttcaatgtat aataaaaaag ttcggagtgt tataaaaatg 360  
 ttccatataa ttgagaaaag ttcaccttat attaaaaatg ctcaatgtac ataaaagcgt 420  
 aaaatgttc 429

<210> 10460  
 <211> 116

<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-A1

<400> 10460

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atcaagtgtc actatatattc cacgttgctc ggtcagatct tacacttttt cgtacc 116

<210> 10461  
<211> 402  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-A10

<400> 10461

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tcgagccctc gctccaggcc ctgcccgcga agtacaacca ggagaagatg atctgccgca 120  
agtgtacgc caggctgcat ccaagggctg tcaactgccg caagaagaag tgtggccaca 180  
gcaaccagct gaggcccaag aagaagatca agaactagag ctgtaagac tgtcatcgcc 240  
gctttcgttg tctgggtaaa tcagtagaca taaaatgttt tccggttatc gttttgctgc 300  
ccctcatgtc aggatgttga accttggta actctagctg agtacttgcc tcgttttaat 360  
gtcagaactg aagtgaacct tggcaaaaaa aaataagagc gg 402

<210> 10462  
<211> 402  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-A11

<400> 10462

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atacaagaat gggcagaagc aacaaacaac cgtagccgtg caagtaaatg atgcaaatga 180  
aagtaatgaa ttaacagaat ctaagcacia tgattatctg gttgcctccc gtattcaaat 240  
tatctatcca catacaagac tatttattat aattgcaatg acaattacgc caaactatac 300



catttgtggt gtgttattca aaaaactgtg aaccggtcta ttggaactac attacttatg 360  
 catggtgaat gtaaatacatg gcaccacaca tctatcatcc ta 402

<210> 10463  
 <211> 364  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-013-Q1-E1-A12  
 <400> 10463

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 ggccaacgct ttcctccaca cattggtcaa tctgcatgga ccccccacaca ccattgtgtc 120  
 tgatggagac aggatattca ctactcattt ttggagagat ttgttcaaac tgcgggacac 180  
 taagttgtct atgagtactg cttatcatcc tcaaaccgat ggacggagtg agcgggtgaa 240  
 ccggtgtttg gagatgttcc tcacgtgtgc agttcatgat acccctacta agtggcatgc 300  
 gtggctgccc ttggcataat tctggtacaa tacacattat cactcatctc tggagtgtc 360  
 tccc 364

<210> 10464  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-013-Q1-E1-A2  
 <400> 10464

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 tgaacaagaa caagaagctt gttaagaagc tagccaagaa gtaccatgct ttcttggcat 120  
 cagaggccat aagcaagcag atccctcgtc tccttggccc tggctctaac aaggcgggca 180  
 agtttccac tctggttagt caccaggaat ctcttgaagc caaggtcaac gagacaaaag 240  
 ctacagtcaa gttccagcta aagaaggttc ttgcatggg tgttgctgtg ggcaacttgt 300  
 cgatggacga gaagcagatc caacataaca tccaaatgag tgtaacttc cttgtgtccc 360  
 tcctgaagaa gaaatggcag aatgtgaggt gcctgtacgt gaagagcanc atgggggaagc 420

gtgtacgggt gttctaagtg tg

442

<210> 10465  
<211> 162  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-013-Q1-E1-A5  
  
<400> 10465

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ggtgcgggag cgctgccgga aagagtgggg gatctggggg ggcgacgac cccggacgccg 120  
acaacgcgtg agaggacatg atgggcgtca ccgctcccaa cc 162

<210> 10466  
<211> 292  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-013-Q1-E1-A6  
  
<400> 10466

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gatttgatg ggtgctcgac ctcgattata aaattgatat tgagtattat gtgggggggc 120  
aaacttttat tgtcagtaca atgacgggta gatggccgta tcggctacaa ttttggcggt 180  
attacatgtt tgcttgagct tgggtcaagg tcatcttctc caatcagcat caagcataaa 240  
tccatggctt tcccaaaaga tcgaggttta cttacacatg acagccccgt gg 292

<210> 10467  
<211> 332  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-013-Q1-E1-A9  
  
<400> 10467

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gccaaagctg ttactcttgt tgctgaacct ttcacactac aaaatgggtg cctcaggctc 120  
acgtccaagg tcaaaagacc gcgagctaac gcctacgtca cgaaagagct cgcacatatg 180

tatacataac tccgtgacac ccaatcagct acgcacacgt tgttcoctact ctacaaatgt 240  
 tcacgactac gggtcacacc tctccaggac aggctcacac cactcagcac cgatctctca 300  
 tctgccttct cctcttgact actcttcacc cc 332

<210> 10468  
 <211> 66  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-B1

<400> 10468

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 atcggtt 66

<210> 10469  
 <211> 316  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-B10

<400> 10469

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 aagggttcaa catgtggaca ttctggcaga catcggattc gtogtcatga ggctacggag 120  
 gggtcttcgt caaattcatc ttcacgttta tcaacaatca tcatcgaccg gtccggatga 180  
 tcacgtcttc gcagatttca ggacccttta tgaaaggaag gtgtacactc aatttagccg 240  
 ttcaggttat cttaatctca gtccttaaag gaattcattt atgatttcaa tgtatacgac 300  
 agttcccttg tgtttt 316

<210> 10470  
 <211> 341  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-B11

<400> 10470

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tttgattga tatcaagaat ggaaagcaat ttgattaccc aagattactt ttcattatca 120  
caggtaaagg gcctgataga aataaagggg atgagcaa ataaaagggtta aaactcagac 180  
gtgttgccctt ccggactatg tggcttgcat cggaggacta tcctctattg ctaggatcag 240  
ctgatctagg cgtttcgctg catacatcct cgtcggcgct tgatctacct atgaaggctg 300  
ttgatacgtt tggatgtgga ctaccagttt gcgccgcttc a 341

<210> 10471  
<211> 452  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-013-Q1-E1-B2  
<400> 10471

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agggttggca actctgcgtc aacgacggct aagcaccggc tcttcgagga tttgcagggtg 120  
ctgacacatt gggccaacac catgataatg gcaactctgc ctcgttaatg tcggccacca 180  
acgatgataa ggccaaaccg ccccatatgg ccattgacct cacctccaac gggaggaata 240  
gattaggttt tcagttgttt ttagggtttt ctttgttatg tataaattac ttcgaaatga 300  
ttgaaaaatc ggtgtccacc ttatttgatc actctggttg gatgggctcc gccagctgg 360  
ctatccacaa acatgtccga caattttttt gaaggcgctac ttatttgtat tcaagcaagc 420  
ggcaaacc aa tacatgtaca attacaaata ca 452

<210> 10472  
<211> 258  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-013-Q1-E1-B8  
<400> 10472

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gtcgatgagg acgactagtg atgagcgttc ttgtccaccc cagtgtacta ttgcaccggg 120  
cggttttgtt gacgtctggc accctgccca gcgggcctgt tcctttgagt tttggttatc 180  
tctcttgagt tatacattgt gtcttctgga ttatgtgccg tgctggcatt tggatcttac 240

tcttaatcct tgtgcaaa

258

<210> 10473  
<211> 157  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-B9

<400> 10473

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gcaagggtcgc gcctccgcag cctcgactcc cagtgggtact tcttcagccg cctcgatcgc 120  
aagcatgccca accgcgggct cagcaactgc tccactg 157

<210> 10474  
<211> 270  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-C1

<400> 10474

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ttctcaaatt atttcctttc gcattacagg gtgatgctaa agcttgggac aatactcttg 180  
ctcctgggtg tgtgcgtagt cccagagata tgatttacta cttctctgaa aaatattttc 240  
ctgctcatat gagacaagct gccttacagg 270

<210> 10475  
<211> 200  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-C11

<400> 10475

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tcgactagct gctgaattat ctggcttaag tcgtcagtat ccggcgggtcg cacgtaagtg 120  
ccttggaat tcgggagaaa tgccgcgtct agtccttcc atgagggggt tgactttgcc 180

ggcacgctac tttgccagtg

200

<210> 10476

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-C2

<400> 10476

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agccgacacg tatttcctcc agccaatgat gattttacac gtggaaaatc cccattggtc 120  
ggggctgtta acggtttatc ggatccaaaa cccgaccga tagcttaacg acgttccatt 180  
acggtggatg ccacgtgtcg gtcacccttg acgaaatcac tttgtgaca cgcgatttat 240  
cgatcatgga gtgcacactt ctgtgatgat aattttgga aagtcatgga acacttctac 300  
gatagcacag gtatgactat cttgattctg tcataaaatc gtcattgatg tacatgcatg 360  
acaaaaaac ggcacctact gtgacaaaca cgtatcatca cggaagtga tttttttgta 420  
gtgattgtcc 430

<210> 10477

<211> 355

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-C3

<400> 10477

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cagtatgtta ctttcctatg atatcatgat ggcttgctta tattactctc aacatttagt 120  
ggggaaatat tcatgctcat aacatgcttt tcttaatat gactccaact tgatatgatg 180  
ttgtatgcct cttggtgccc ctacccttcc taatcccaga acctttcaaa gtaaagtggc 240  
atggcagttg caggtgggta ctggctcgat cagacaacgg ctaacgattg atgatcttcc 300  
tcagctaccg gacgtgttgt ttgcgcgaat acaatcatat tcactggata ggtct 355

<210> 10478

<211> 456

<212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB31-013-Q1-E1-C6

<400>      10478

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attcgccggt cgacataaca aacaaacgat ggtgatatct tccatgctac acacattata   60
ggcggttccc aaacagaatg gtaaagttaa tactccccct ccaccaacaa gcatcaatcc  120
atggcttgct cgagacaacg agtgcctcca actaacaaca gtcccagggg gggttttggt  180
tgcaattatt ttggtttgat ttgcataaag catgggattg ggcattcccg tgaccagcca  240
ttttctcgtg agtgaggagc ggagtccact cctcttgaga ataacccgca taacatggaa  300
gatacggata gccctaattg atacatgagc tatttgagca tacaagacag aatttcattt  360
gaaggtttaa agtttgggac atacaaatth acttgggaac gtaggtagat actgcagata  420
ggaagggtata gtggactcat atggaataac tttggg                               456
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<210>      10479

<211>      439

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB31-013-Q1-E1-C8

<400>      10479

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cagcaacatt gaaaaatctg cagccgagc cagtgaagcg aagaaagaaa tcggcaaagc   60
gtccaagact cagaagtcaa attcatcctt gctttgcctg cttatggtga tctttggggt  120
tgttttgctt atcgtgataa tagttttggc atcttgagac acggatgctt agaggcctat  180
tggtgcccctc tgaggagcca tattacgtgc aagattaatc ctcgctgtgc gccgaagact  240
gtcgctaact gaagtgtaca ttttcttttt ctctcttctt ttttcttgtt ggtttgtgag  300
tgcgtattct tgtgtggcgc gagtcctttt tttccacgg cttgccctga ctgaacagtc  360
atgctctttt tcacctacaa aggtttgttt gctgctttgc ttgagtcaga aacttgacat  420
tctgtaagta tttccactg                               439
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<210>      10480

<211>      299

<212>      DNA

<213>      *Triticum aestivum*

<223> Clone ID: LIB31-013-Q1-E1-C9

<400> 10480

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agcatctggg ggcgcagttt ggggtccaagg cagcgatcgc ttttaagcatt cttattccaa 120  
gcactgcaaa gtattcacac tgcacggggg ttcgtcagac gttcacattg cacagttcgg 180  
ggagcttaat ccggacctgc tgttctctgc aagtccacta cgagaagcac aagtctatgt 240  
gctacaggct ccatgtctat gtctctcctt tcttcagggt ctatagggga gctcagggc 299

<210> 10481

<211> 312

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-D1

<400> 10481

ctccgaggga agtactgcgt gtgcttcgat ccgctggacg gctcctcaa catcgactgc 60  
ggcgtctcca tcgggaccat ctttgggatc tacatgatca aagacaatga caaggggact 120  
ctggaggaca tgctgcaacc cgggactgac atgatccccg ctggccaccg catgtccacg 180  
acctcatgca cgctgtgtg tagcaccggg aaccgggtgtg catggcatca ctcttcacg 240  
ttcccttagg gactccatac ttacgcaacc caacataaag atcccaggca aggggaaact 300  
ctattcggtc aa 312

<210> 10482

<211> 323

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-D11

<400> 10482

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agggcaagaa acaacagatt gagagccagg caaagcgtat ttgctccctg gtaatcgaaa 120  
ccctagcaat accacctcaa actggactag gccttcacct tcaccgcaag gggccgaacc 180  
aatataaact cctcgtgtcc tttgtcccggt ttaaccctt taagctaacc tcgttgtaat 240



ggctccacaa ctaagtcctt ccatgaggac atctgccgtg acacttccac ggcaacttca 300  
atgcacatgt tatgaaacaa ttg 323

<210> 10483  
<211> 425  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-013-Q1-E1-D2  
  
<400> 10483

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atcaccatct cctggatgcc ttgatatctg tgttgctttg ttgatggttg tgtagctctt 120  
gacataatcg gctactgtta acaacttgaa ccagtaataa tctgcttgat gatagaaacc 180  
ttcttggtcc ttcagaataa cagagctaag tgcaggggcc atttttctga acgaaacact 240  
ggattcaatt aagagaaaaa ggaaacactg gatttctcca ccatatggca agcataaaaa 300  
gatgtctaatt ttggtaattt tcaacgcctt acaagttact gtacttgaat aaccagaaag 360  
gaatatatgt tcttttacag gtccagtgtg gtccttcat tcaggggaca cagagtgcag 420  
agtct 425

<210> 10484  
<211> 256  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-013-Q1-E1-D5  
  
<400> 10484

gtccacaatc acatggaatg gtgattcatg aaacccatgg tatgatgtgt aaacacagtc 60  
ccccctggcg aatggaagta gcataactcg gtaatcatcg ccggtgatat gatcgatgat 120  
tggttgatg ctcgataat tgagcccag gaacatggag tggttgccga cgctgtaaac 180  
ccgctccaa ttgaatacgc ctggccaaac aaagctggga tctttctcga acacgaagca 240  
gccagagccg tcaatg 256

<210> 10485  
<211> 400  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-013-Q1-E1-D6

<400>       10485

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tggtgttggg tcctattgtc gtggcgtttt tgctgtctgc gtcttgttgc tgctcgttgg  120
gggggggggtt ttgcctcgtg ggtcttgttg ctgggggtctg ggggtgctggg gtttcgcgtc  180
tggtgtcttg ttgccgttgc gttccgggcg tcgtgttttg ctgtttcggt cttgttgccg  240
cgtgttgggg aagaggagat ttttgtcaca tggctcttgt tgcagaagag ttacacgaga  300
agaggtttca cagcaggaac attgctgcaa gaaattagag aacaggaatg gtccgctcgc  360
ctcctacaat ctgacagctc acgaggcagc ggggtcttttt                               400
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<210>       10486

<211>       218

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-013-Q1-E1-E10

<400>       10486

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cctagggttt atggaatatt ggggtattta tagagcaaat acgcggtgct ggacgcacct   60
atgtgggcat aaccacactg tgcgcgcctc ggcccccagg tgcgccctgg tggttcctgc  120
gggccttggg gcatccctct ctccctctt cagggcatct tgtgtcttct ggtccactat  180
ctaaccacac ctagttttgc tgcttttcga ctcccttt                               218
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<210>       10487

<211>       394

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-013-Q1-E1-E5

<400>       10487

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cgccggatga gatgggtgag ctgatgacta aaatggaaga ttttacgcac cgagggtggg  120
tctgcgatca ctccatagtg ttctgagggg gattcaattc agcactagac agccaaaagg  180
```

aagacacaat aagctggcca agctcatatg catgcacctc tgccaactga accatctaata 240  
acctcaccgg agtatgtaat gctatctacg ctgatgaatg aattatctgg tgcattatgg 300  
ttagcaacat ggcattgctgt tctgttttcc ctcatgatac cggctgtcca gtaacttgct 360  
tttaactgaa cttctattgg attgtcttag ctta 394

<210> 10488  
<211> 408  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-013-Q1-E1-E6  
<400> 10488

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cgttggcggc ggctgtgccg cttgtcctgc tctcgcgtgc cgggggtggc gcggcggccc 120  
tgtccctgtc tggcctgggt ttcgcccgcc tgcgcctggc ccttgtggct ggctgctgg 180  
gccgcgtcct gggcttctca gtcactgcc ctggcaccac tgcagctgac ctgatggaca 240  
tgggtgctgat caccagtac ttgccaacta tgacagaagt tggcgcgtcc tccaagtcct 300  
cggcgggtgt catcccccat ggccttggt ctgtgctcga catcgccacc agatccgcat 360  
tgtcttcttc acggccagtc tgcctctgac aactaagcac ctttgctt 408

<210> 10489  
<211> 66  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-013-Q1-E1-E8  
<400> 10489

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tgctct 66

<210> 10490  
<211> 245  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-013-Q1-E1-F11

<400> 10490

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tgcacgcagt gccaggcgaa ccatgccagc gccaccagcg aggagtgcac cgtggcttgg 120

ggagtttgca accatgcatt ccacttctgc ggcacacccc gttggcacat gacacgtcac 180

gtgtgccatc tccactacag cgagtgggag ttccatacgt acggtgactc acatcggtat 240

ggcca 245

<210> 10491

<211> 199

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-F4

<400> 10491

ggtggtggtg gtgccatttt cctattatac ataagcattg attggataga gttaattaaa 60

catcaatatt tgttctaacg caagcattca tcagatagag acaaaacatc ggatagaggg 120

aaacataaat cgtccagaat aagaatatct ttctggctaa gcttacttac gaatgttggt 180

gattaaaaca ttatacatg 199

<210> 10492

<211> 157

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-F5

<400> 10492

gattgggccc gggatttttc tcatggtaca acgtaatcac cttaatttgc tatatatcca 60

ttcatcactt aacgcaatcc ctccgtcact gttaatcaat aggggggggat cgctgttgca 120

tcatttttgc tctagcttat tcttgactgt ttcattc 157

<210> 10493

<211> 441

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-013-Q1-E1-F6

<400> 10493

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aattttcagt aaacccttg ttcttttgct taataaacc acagttctat ttttaaggga 120  
gtttaaagac tttttaaaat actagcaagg cgacccatgc gtcgcaactg aagaaaaaaa 180  
aatcataatc tctaattggtc atgaccacat tttgctgcat caccgagata cactatcact 240  
ttcattttcg tgaaatcgtg aacagttttt gacaatcatg aacatttttt tagctgagga 300  
acatatctgg aatcgtgaac attttccagg tacgtgaaca attttagaaa agtgcaaact 360  
ttgtccagag tcataaacgt gttaggaatt catgagcatt ttatactagt tgcagaaggt 420  
gggggattat gaacattttt t 441

<210> 10494

<211> 441

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-F7

<400> 10494

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ctacgacttc tggctggact tcagctcgtg catgagccgc tgccgccagc cctccgagtg 120  
cgggctcctc cgcgaggact acctcgagtg cctccaccac tccaaggagt tccaacgcag 180  
gaacaggatc tacaaggagg agcaacgtca gataagagct gctgctcgca aggccaagga 240  
ggaagccgaa ggagctcctg ctgttgacgc tcaccactag catccctttt caattttttt 300  
cttatgcttt tgtttgttgc aagcgcttcc atgttcggct atgagcaagg caataattac 360  
ctaaacattg caccctcgca cctccatgac ttgttctaaa agcatggatt tgatagacta 420  
ccttggtcat caaatttgtg c 441

<210> 10495

<211> 151

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-G1

<400> 10495

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tcgtcgtcgg gtttgcttcg ttctttgtgc tctgctgtcc ggggcggggg ccggcgttct 120  
ttctttgcct cccgggggggt gggtccttct t 151

<210> 10496  
<211> 313  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-013-Q1-E1-G10  
<400> 10496

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atccacagta tgggtggagaa cccaccttgc aaagccgaag acttatatcc gcatactata 120  
tcaggggtga aggcaacttc gggggctact gagggagtcc tacattcggg ggtcctcaag 180  
tgtccgtccc atgagtatcg gccaggttgg atgggtcata cactatcaag ctgaagacta 240  
tccttcgtgt ccatgtggga cctctccata cgtaaaactac aagattagag tccagatgta 300  
tcatttcctt ccc 313

<210> 10497  
<211> 187  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-013-Q1-E1-G12  
<400> 10497

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ctctgttaca ttttacaatt tttcctactt tacatctatt cggggcttca gacctatact 120  
ctactaaaat actatgggtca attctcttag ttcatcacat cctactcaat ctaatccttt 180  
caatttt 187

<210> 10498  
<211> 139  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-013-Q1-E1-G2

<400> 10498

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gtggcctctc ggggcgtgtg tgtgtcctgt cctctggcgt gcggcgtgtt ttggctcctt 120  
gctggtttcc gcttggtgc 139

<210> 10499

<211> 169

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-G3

<400> 10499

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tcaccactt gttgctgctc gattcttggg acggggatct gtcgatctcg aaaacattag 120  
tgtcgtctca ttacttacc cctcttatac atatccttct ggttttggt 169

<210> 10500

<211> 203

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-G4

<400> 10500

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tttctccgtt gggtttgctg tggcgggccc ttccctcggg tgcccgttgt ttcttcgcgt 180  
ctcgtccttg ggtttctttt ttc 203

<210> 10501

<211> 90

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-G6

<400> 10501

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ttggcctggt tgtttgtttg ttctcgttct

90

<210> 10502

<211> 280

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-G7

<400> 10502

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cgctgtgctg ctgcgtgttc tgtgtgctct tgttcctggc tgtcttgtgg tctcctgttt 240

gctggtttgg cgcgttttct tctgtctgtg tgctgctcgg 280

<210> 10503

<211> 325

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-G9

<400> 10503

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catccggctc tgtaaccatc ggtgatgata gaaatccact gttttttgaa cggagagata 120

aactgttact accccggggc ttttttagat cttggagacg ataagagtgt gtgaatagag 180

caaccctagc aagcaagcgc ggatgctccg ggctatatat acataatggg gtagttttcc 240

tttttcactc catcaaaaca aatcgtttac aattgtgtac tactacatgc cacgtccgtg 300

gttttttttag atgttgattg ctttt 325

<210> 10504

<211> 413

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-H11

<400> 10504



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ccatgggttat gaaactgaaa ctgttggtggc acatcttact aagttgaatg atatagccac 120  
cctttttttac tcatgacaag aaaactcgct attactttat ctaaaattag ttcctttctc 180  
attaatgggt gatgctaaag cttggtacaa tactcttact cctgggttg tgcgtagtcc 240  
ccgggatgtg atttattact tctctagaaa atagtttccct gctcataaga aacaagcttc 300  
cttgcataaa atatttaact ttgttcaaac taaaaaagag agtctcccaa aagcttgggg 360  
gaggcttcgc cagttactta atgctttgcc ggattatcct cttaagaaaa atg 413

<210> 10505  
<211> 330  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-013-Q1-E1-H12  
<400> 10505

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aggagcagac gacgattcag acaagcaacc acgcacgccg acaagcctag gagagtccac 120  
ttaggacctc gagaagagca gcgccagac cttccagcta gacagaacca ccgccgacgc 180  
atctgtggtc aacattgtcc ggctcgactt ctctcgaag catgggcagc ctgagctggc 240  
gtgcatctac cgcttcaggg tgcacggcag cgagcctggc tctcttccgc accgcggcat 300  
cgtgaggcct gatctagtta gggcctgtgt 330

<210> 10506  
<211> 275  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-013-Q1-E1-H8  
<400> 10506

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aggtgctcat agaaggaagg gtttcttctgt gtgcatccaa aaaggtgagt gtatgcgtgt 120  
gtgcattcat agaggtgagt gtatgcgtgt gtatataacc ccttgtgtct gtactaatgt 180  
taaaaaaaaa gtttctgaaa agtaagaaat aaacaaagag tagtatattg tgtacatatg 240

agccggacac accagcgagg gctcccaaag ccaac

275

<210> 10507

<211> 218

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-H9

<400> 10507

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ttgtcatggc aacatgggag gcatgttata gcacgtgggtg ggcatcggcg catagcaatg 120

gagcgaacaa cgagcaagca aagatataag tgatttcgag ggtatgggtca ccttgtctga 180

gatcccgcaa ggaagaataa ccatttcatt aagaagac 218

<210> 10508

<211> 261

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-A12

<400> 10508

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cggagggcct agcaacctta catcattacc acgtggggct ttcaatctgc tgacttttcc 180

tctcccagca gtgagggcga gaggattctt aagccttggtg gaatattgtg atgtattgga 240

tggaacactg gagtgtcact t 261

<210> 10509

<211> 215

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-A9

<400> 10509

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cctgcgtata ctaagtgtgc agatctggca taagttttat ctctgggatc tccagcactg 120

cgcgacggat ttgactggga agacagcaat ggtgactggg gccaacagtg gcattgggaa 180  
cgctgtgtcc caggagctgg cccagcgagg ggccc 215

<210> 10510  
<211> 409  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-014-Q1-E1-B10  
  
<400> 10510

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gtacccattc tatcacttgt taaatttatt tctaacagag ctcaaacttt gggttgtcaa 120  
tggggctaata taagggcatg atcttcaccc tctttgaaac cgtgggtcac ctgtgacacc 180  
atctggagaa tgaaatatac tcaggcgggg ctccctggat gattctttca aagacaaatc 240  
ctcaagtgac ttgtttcttt ggatttttat cctttgccct ctactcttcc cttttcacc 300  
atcatcgctc cccactccc acacctggga agatgcaatg cctgtggctg aagcagcagt 360  
tttgcaaacc tgagaacaaa agacatgtgt tgctaagcat actgaagga 409

<210> 10511  
<211> 325  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-014-Q1-E1-B11  
  
<400> 10511

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atcaaacgat gctgtttcat ctaatgacc tgttgaaacag gggggctctt ataaatggtc 120  
acaatttcat ggttcgaaat ttctgatgtg ggcaaccact acaggatcaa gtacagctga 180  
agggccgtga cctcctcact ctacagaact ttacaggaga agaaattaag tatatgctat 240  
ggctatcaac acatctgaaa ttcaggatac accacattcg acagtatttg cctttactgc 300  
acgggaagtc cttatgcatg acttt 325

<210> 10512  
<211> 404

<212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-014-Q1-E1-B12  
  
 <400> 10512  
  
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 taccaatcat cagattaaga ttactttctac actgcgtaac tttgggttga caatgagcct 120  
 aattaagggc atgatattca ggcactttga aaccgtgggt cacatgtgac accatctgga 180  
 gaatgagata tactcaggcg gggcttcctg gatgattctt tcatagacaa atcctcaaatt 240  
 gacttgatc tttggatttt tatcatttgc cctctactcg tcccttttca cccatcagcg 300  
 ctccccact cgcacacctg ggaagatgca atgcctgtgg ctgaagcaac agttgtgcaa 360  
 acctgagaac aaggacatg tattgctaag cagactgaag gagt 404

<210> 10513  
 <211> 331  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-014-Q1-E1-B9  
  
 <400> 10513  
  
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 tggtcacaat ttcgtgggtc gaaattttcc atgtgggcaa ccactacacg ataaagtaca 180  
 gctgaagggc cgtgacctcc tactctgaa tcaactttac acgagaacaa attaagtata 240  
 tgccatggct atcagcacat ctgaaattca cgataaaaca caaaggaaag tcattgcctt 300  
 tactgcaatg gaagtcctta agcatgattt t 331

<210> 10514  
 <211> 200  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-014-Q1-E1-C10  
  
 <400> 10514  
  
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catcaagttc cctaggtgtc aagaaattcc attctgggag gcaagttcgt caatcaaatt 120  
 tgtttagaag tccaacacaa ttagaccatc taaacaagcc gcacagttgg ctcaaatact 180  
 aatgttctag taccagaatt 200

<210> 10515  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-014-Q1-E1-C9  
 <400> 10515

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 catcggggga cggaaatata gtggagaatg gagttttcat gtcaccagga cacctttcca 180  
 tctcaactcc atctctctcc cagtctcctt ttgggacatt acgtacgact cgaggataca 240  
 aggaaaaacc atgttttgta ctgagaaact gagatcagta gctcctacct ggtgtcctgt 300  
 tccttcagtc agcctctcaa ggctctgagc cctaatagcc tcctgcaacc ctgaggaatc 360  
 cataacttaag gggacggt 378

<210> 10516  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-014-Q1-E1-D10  
 <400> 10516

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 aactcacca caggatacga acggaatcat ctcacactgt gaacgagatg catgctgac 120  
 cttcacagtc gcgactctct ccatgtgagg tagaacgagc accatgcatg ttcatacaaa 180  
 ggcttctgt cataactagta gcccgtaggac gtggacgaat gtaccttgca gctcagctca 240  
 ctctaggagg accccccggc cgggtgccat cacctgtgcc acaactacat cggcggtat 300  
 ttctgtcct gccgtccagg ctatgagctc cagccggatg ggcgttctg ccaggccgaa 360

tgcagcagcg atctgttcac ggagccctca tgctacatct ccagcttggga gtacccccgg 420  
ccctaacccc ctgacctgcc ctgc 444

<210> 10517  
<211> 375  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-D9

<400> 10517

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gtacttttaga tcgagtcggt tcttcatacc gatagtcac gaggatgtca tgtagcgaag 180  
tttatgggta gttcaccatc gcagaagcac gctgagcttt gcttgatcta tccaggggtg 240  
tgctttgtgc accttgaggt tgcagcatcc tgtctacttg caggtcttac agtcgaatct 300  
ctaacatctt cgagtactgc ttgtaagtta ccacgcagct ggagcaccat catctacgag 360  
gcttccatag actct 375

<210> 10518  
<211> 352  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-E9

<400> 10518

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cctgcttctg agttatgacc tctgtcggac gtttatccaa gacaggggta cagtgtgtat 120  
aggcccaggt gggcaggagt cattcggtgc tagttgacct tcgtcgacgt gcagtcgaag 180  
ttccatcacg acacctgcaa ttacgatacc tagcacgcct tcgtcgttca tgactaggac 240  
taccacacct ggtatgctgc cggattcctg agcttttacc cgtgcagtac tgttcctgac 300  
tcttctgtgt atatgaacgt gaccaccatt ctggactggg ttcggaacat ca 352

<210> 10519  
<211> 431  
<212> DNA



<400> 10521

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acatctgata agttttctca cgattagtta gggatcatg ctcagatgtg caccgtctta 120

tttgtggctg gaactctcgt gatttatgct gtctggcatg ctcttattgt tgttttatgt 180

ccagcttctg aaccgcatgg actgtcagt agatcattaa ttgaggcttt acacccttcc 240

agtcattcgg cacctccact gagagtaacg ttgtagtcca gctgatgatg ggagtgattt 300

gcctgtgatt gttattggcc agcatatgtc tgttgtaccg accgtagtca cggaggatga 360

ctgcgaagat accgtgtgat cagggtccgac ccgttggtcg ccataggatg ggg 413

<210> 10522

<211> 405

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-014-Q1-E1-G9

<400> 10522

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ttcattaagg taaaacccaa ccatagcatt aagatatatt ggtccccctt caatcccgtta 120

tgcattcaatt tctatgctag gttgaagctt ctgttacact tgccctccaa tacatactcc 180

tatcatcata caactaacc tatgggtgtga tacatgcgcg cattcatatg atgggaacca 240

aaggacaaca acatatccac atgcaaatta aatcaatcat agcaattcat caaccaccga 300

taggacaacg acattctact cagacatcat acgatggcaa cacaccattg gataacaaca 360

tgaagcacia agcccaatgt ccacgtagag ggtactacgg gttgc 405

<210> 10523

<211> 217

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-014-Q1-E1-H10

<400> 10523

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gctaagaatg ttaagatcct catcaggcct gatggcacga agaaggcgta tctgaagcat 120



gacaccagcc tacgatgctc atgacttggc atcaccgttg gggatcatct taccctgagg 180  
gagggtcctg tcatatctgc ttgagctcgt ggtgaca 217

<210> 10524  
<211> 455  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-H12

<400> 10524

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gagatgctct tatccgtgca cgggtcacct cttggaatgt acaaagagga aaatctggca 120  
gctattaccg aatctggaaa cggaagcgaa gagccgcctc acgatgccag tggccatcaa 180  
tagtagtagt agagcttaac cggccctcaa cataaaaggc taggaatttg atgctgcatc 240  
ttctcttcag gccgaagctg ggacaccaat cgaagctcca accaccaatt cagtgtgctt 300  
gcagcagcat ctcgagtccc agcgtcagct gagagtctcc gacaagatgc agtgcggtgtg 360  
taggctatca tgtttgatat aagatcttat catgtttgat gtgttgcaag tgcaagcatc 420  
tgagtcatgt ttttgtttgc tataaatcat accat 455

<210> 10525  
<211> 438  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-H9

<400> 10525

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tccagcacc cactgatagg ccagggccc cctgcatct tctccaccgc cgcccacggg 120  
tgcggggtcg gtggcctacc ggctgcagtg atcagcatcc caaccctgct ctccctcgtcg 180  
tctctcctga tcatcagctt catcttatgg aaaacttgcc gccggttgtc ccgggtcacc 240  
catccccgcc tgccatccac atgagggggc caggaatctg aattgtggaa tgtgacaccc 300  
acaaatggcg ctgagttata ttaatgcctg cgaacctctg ctgctgaggc ccctggagct 360  
accctgctcc tttcaaagac ccattcatca ataatccttt tgattctgaa agtccttgca 420

atcaagtccc cagacttt

438

<210> 10526

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-A3

<400> 10526

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agtgaagata aggttaggca atgtgttgac tcaagacttg gaggggacta tcctcctaag 120  
gctgttgcaa agtttgcagc cgtcgctgca ttgtgcgtcc aatacgaagc cgacttccgg 180  
ccaaacatga gcatcgctgt caaggcgctc cagccccctgc tgaacgcgcg agcagcccac 240  
cccggggctg aacacgctgg acgctaagct gactcgggc cttttgtatg atataataga 300  
taaggaaaaa tgagccatca attgttgttc ttgcggggca tgtggcaagc ggtttttcta 360  
catttgtgat tattcttccc aagttgtaac cctcgagatt ctagtaccag aaatatttga 420  
ttccttgtat cggttgc 437

<210> 10527

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-A4

<400> 10527

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tctctctctc tctctaagc cactgggccc tgttactgtc cactcgacgt ataactgatg 120  
cttcaaagt taggcatgat ataagtaa cctgtttcct ttgaagagat agattttcac 180  
atgaaggatg gcattacggc agtaggaaca ctctcttggt ttgtttgatg taacatgtcg 240  
ggtttccact ggcattatac atatttgggg ctggcgagca aatttatggt gaacaatttt 300  
tgtatacacc tttaccagc tagcaaaaaa ataactttt ccatttagta ttcctatgctc 360  
aacacaacca tgagtgtaac ttcttttga aatgatgtta ttactacaa tgctaccctc 420  
ccatctctc ggattgggg 439

<210> 10528  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-015-Q1-E1-A5  
  
 <400> 10528

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 cacgtacgcc atctcgtctc gtttatcatc gtctcgccgc gtaccgggtt gccccaacga 120  
 acgtccctct ctccaccaat ccaatattcg aaaccgctcg agaaagaaag caccatgcaa 180  
 gatcgagata gcctctgtcc ttgcttgagc caacgtacgg agccgcgtaa ggaggaagga 240  
 actgcgaaac tgtagtatct gccttcctaa tgggcccagc aggtctcca tccgatctgc 300  
 ccatataagt tgagcaccgc agccttttcg gcccatcgct gtcgcctgtc ccagttcccc 360  
 tgttcaatac tgcgaaactg ttgtatgcag tgctgtgccc gttgtacatc tac 413

<210> 10529  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-015-Q1-E1-B1  
  
 <400> 10529

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 gttcatgcga gtccctaaaga aatatgtccg taaccgtgct aggccagaag gaagcatctc 120  
 cacgggccat caaatagagg atgtcattgg gttttgtggt gacttcattc ctggccttaa 180  
 gaagattagt ctccctaaat cgtgggtatga ggggagacta actagaaaag gcccgctagg 240  
 aggggactca ataatatgca aggacgggca ttcttgttct caagcacact acacagttct 300  
 acagaactct accttgggtga cctcgtatgt cgatgaacac aagaacagtc tatgctccaa 360  
 acaccgaag cagtgtgatg attggattac atgtcaacac atcaggactt tcggcagttg 420  
 gttgggaaca 430

<210> 10530  
 <211> 416  
 <212> DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB31-015-Q1-E1-B4

<400>      10530

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aatgacataa cacagaagaa tcatgcctaa gtaaaaagat atatgaaaga actaaaacgt    120  
aagcgcatca tgtataggga gtacgaagaa aaaagatgaa aatgttaaaa aaagaacaaa    180  
gcaaaatgag tgattatagg gtgtgggtcat ttacgctttc aactccttca tgtgcttgct    240  
gctggccctc gcattttcaa accgcttgat gatgtcgtag agctgggtct gttccttagt    300  
ggccctgaat tcgggctcgt agtcttccgc gggaggtgcg tgaactaccc tctgctgtct    360  
cacagaacca agggtcgctc ttctgatggt atcctcagtt gccgtctccg cagtca        416

<210>      10531

<211>      384

<212>      DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB31-015-Q1-E1-C1

<400>      10531

tcgacagtgc ggcctaaatt cactcctatt aaggctgtct tcttcgggtc tgttgggtgg    60  
acctgaaatt tgaccgtttc ttctgctggc ttgaaagaag tagatttggg tcatttgtcc    120  
aggataacat cgtctctatc caccctggag cgtagtgagg ttagttcttc agccgcaagg    180  
gccttagata atgcctcgag ggccaaggat gcggttttgt tctcgggtgag gagggtctatg    240  
tccggatcgc tgacgagggt gattattcca ttaggcccgg gcatttttag ctacatatac    300  
ccataatgag gtatggcttg aaagcgcatg aaggcctctc gccctaacag ggcattggtat    360  
cccaaaaaaa agggagagcg gggg    384

<210>      10532

<211>      440

<212>      DNA

<213>      Triticum aestivum

<223>      unsure at all n locations

<223>      Clone ID: LIB31-015-Q1-E1-C2

<400>      10532

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aagaggaagc cgctgaagac gatcgagaac ctcaagaccg agacgggcca gatgaagtcc 180  
aaccatgacg cccagatcct ggcgataagc tcgggcaagg atangaatgg gatgaggctc 240  
gtacacgtcc catccttcac cgtgtaccaa aactggccag ggccacgggt cagccttcag 300  
taccgcaggt gcctggactt cagccctggg agcgggttcc tctccgtcgg gcacgccggc 360  
ggaaaagtgt tgctctacaa gctgcaccac tatcagaacg cttagggttc ccacagtcca 420  
gttttgacac tgtatatttc 440

<210> 10533  
<211> 415  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-015-Q1-E1-D1  
<400> 10533

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ctccacattt caatattccg caagcccatg gacgaacgga cacttcctcg ctacttcaa 180  
gagtctgcag tctttgatat cagaaaggaa tttgagaaca tcttggttc gtcggatact 240  
gatgagctcg ctcgcttgga gatgttttac cgtagcgtgc tttctggtgt taaggacaag 300  
cttctcaaga gaaaagtga agtgatggtc caagaatgca ttgtttcact ctctgcaggg 360  
aggcaaacc cgcgtggtca gtgagttgga agaccgttgt tataaactgc atttt 415

<210> 10534  
<211> 410  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-015-Q1-E1-D2  
<400> 10534

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aaataagccg agaacgatgg ccgcattaac aaacctcatg acccgctttt gcgcggggga 120

ggacagctgg ctatccagat gcagcaccag cgaccccagt acatctgaag ttagagatgg 180  
aaacgggaaa tcacggcgca acagcaataa caaacgccgg aataaagaag acagaacgaa 240  
gggcacggca gtaaattgccg gattcaaaag ctctcagcca ggccaaaagc cgccccctaa 300  
aggcaccagg gacgaattgt ccagcccctg gtaaacttgc taatcatacc cagtagataa 360  
tgttgggtct tcaagcagtc cggcaaaactc aacgccggtc gacaaggggg 410

<210> 10535

<211> 388

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-D3

<400> 10535

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tcagcagagc catcagggcc gcggtgattc ctcccaactt caggttgggtg actggagtca 180  
gcaagttcaa cggtagagtct aagcccgata cttggcttga ggactaccga gtggctattc 240  
agatcgacga tggaatgac gaggtggcca tgaagcatct gcctctcatg ttggaagggt 300  
caaccagagc atggttgaat cagttgacac ccagcagcat ctacacatgg gacgacctct 360  
cctgagtgtt tgtcaggacg ttcgaagg 388

<210> 10536

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-D4

<400> 10536

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gtgctcccat cggagcacc cccatgtgtt gccttggccc attgggtgtc ttctggtcca 180  
taaaaaatct ccgtgaagtt tgttgcatth ggactccgtt tggattgat ttctgcgat 240  
gtaaaaaaca tgcagaaaac agtaactggc acttggcact atgttaatag gtagtagca 300

aaaatgatat aaaatgacta taaatgatta taaaacatcc aagattgata gtataacaac 360  
atggaacaat caaaaattat agactcgttg gggacgtatc agcatcccca agcttaactc 420  
ctggtcgtcc tcgag 435

<210> 10537  
<211> 370  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-015-Q1-E1-D7  
<400> 10537

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ccttgtccag atcgatcctg ccgccagcga tggaaagatg ctgctccgcc gctgcctgat 120  
cttccgtctt ctctctcccc cctgggtccaa atccctaatt tttccccaag gattcaaccc 180  
caaactttct aatccccctt cagatttgct gtgggctgct cttcctctgc tgctccagat 240  
tgaactcgcc ggcgctgatg accgcggtgc cgctgggtgg tgcagggttaa cgctcaagtg 300  
tgcagccatg gagcagatcg agcatatgtg caggtagaga gatgaagacg gtggggaaga 360  
caagctgttg 370

<210> 10538  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-015-Q1-E1-E1  
<400> 10538

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atcaagtggc atcagatttc caggttgctc agtgagattt tacagttttg cgtagtttag 120  
atcgagtcta ttcttcatac ctacagttca caaaaaagcc aaaaaaatta gggtagtttc 180  
atcatatctg aaccaatcta agcctttgca taatcttttt agggttttgc attgttgaat 240  
ttgcggttgc atcgctgctg ctagttgctg gtcttagtgt ctagtccttt agagtttcga 300  
gttctgtcca caagttttca cgccgctact gcaccatcgt catcaccgct gccatatacc 360  
accatcgtcg tcacgctgc catataccac catcgtcatc acgctcccat ataccaccat 420

cctcatcacc actgccatat a

441

<210> 10539

<211> 431

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-E2

<400> 10539

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ccggcacttc tgcggcctgg caggatggac atgcacatcc acatggggta ctgcaccacg 120  
gaggctttcc gaattcttgc caacaactac cattccatcg actaccatgc cacctatcca 180  
gagatcgaga agctgatcga ggaggttgcc gaggtcctga tgaggaacga cgacactgat 240  
gttgcgctgc atgatcttgt cgagctcata aagttaaaga agaaggatgc gactgagatc 300  
aaaactgaaa gtaagaagac agagaagaaa gatgccactg atgacatcaa gattgaggct 360  
acgcacgtgg atgggaagaa agatggtggt gagatcaaga ctggaagtgt gcaggtggag 420  
gagaagaaag a 431

<210> 10540

<211> 373

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-E3

<400> 10540

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gctcggtgag attttacagt ttttcgtcgt ttagatcgag tctattcttt gtacctatag 120  
tccactaaaa agccaagaaa aattagggtt tgttcaccc atccgaactg atctgaacct 180  
ttgcataatc ttttctgtat ttgctttggt gaatttgccg ttgcatcgtc gtgtcaagtt 240  
gctggtctta gtgtctagtc ctttagagtt ttgagttcag ttcacagggt gtcatgtcgc 300  
tgctgccata tatcaccatc gcatcatcat catcgctgct gccatatacc accaccacac 360  
caacttcacg gtg 373



<210> 10541  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-015-Q1-E1-F2  
  
 <400> 10541  
  
 gtccacgagg ccttcctagc taagtatgat gtcaagccga acaatgccat tctcgccgag 60  
 gacaagcact tgcccatgta cgatgagttg tccagcaagg aaaatgttga atacattgct 120  
 ggaggagcca cgcagaactc tatcaggggt gcccaatgga tgcttcaaac tcttggtgca 180  
 acaagttaca tgggttgcac tggaaaggac aagtatggtg aggagatgaa gagcgccgct 240  
 aaagctgcag gagttactgc tcattactat gaggatgagg ctgctcctac aggcatgt 300  
 gctgtatgtg ttgttggtgg cgaaaggcca ttgattgcaa acttatctgc cggaactgc 360  
 tacaaatctg agcatctaaa gaagccagag aactgggcac tagtttagaa agcaagatac 420  
 atctaaattg ctggctttt 439

<210> 10542  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-015-Q1-E1-F5  
  
 <400> 10542  
  
 cgggtcgaca aaaatatgca atagacgata atacattggt aaaaagcagc gctaattttt 60  
 aagaactaac cacagcgcca gatatgaata ctttttcaaa aaaatgaaca cttttcttgc 120  
 aaagtgtaaa gaaataatta aaaggcaagt attttttgaa agtctgaaca ttttgtgcta 180  
 gatgtgagca aattccgaaa ttttaaactt ttctgaaatg cgatttgcata aaaatgttaa 240  
 catcttttgg agttotgaat ttttttttaa aagtgtgaac ttaacaacat gaacaaatat 300  
 tgaaatttca aacttcttcc caaatggcg aacaattttt gtagaaagt accatttttt 360  
 gaaactgtga atttcttgaa aattctgaac tttccgttca aataatgaaa aatccaaaaa 420  
 attctgaaca aa 432

<210> 10543  
 <211> 437

<212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB31-015-Q1-E1-G2  
 <400> 10543  
 ttcgacatta cactctagaa tgactcgtat caccacccat ggagcttcct cctttccgtc 60  
 ttcagggtgag ttgcgccct cctctctctg ctcttggtcg tggccattga ggcattgttc 120  
 ttggttagga tttaccactg tttgggctca attgggtact gtttgaggtc aattttgtgt 180  
 atactattaa gtgttgattg tttcttgaat tgaacagcaa ggtagacat gaatttgta 240  
 gtagaataga tccctgaccg aactgcaatt gtagttgaa ttgtccaatc ttgaatttag 300  
 ggagctgcta ctgaaagggt tttttcattt tgtatgtcat gggttggcca tcaattttat 360  
 taaacagcaa ggttaaccac gatcacacga agccgaagggt gcacgatgaa gaaaccgtac 420  
 gtgcatactc tatccat 437

<210> 10544  
 <211> 441  
 <212> DNA  
 <213> *Triticum aestivum*  
 <223> Clone ID: LIB31-015-Q1-E1-G3  
 <400> 10544  
 ggtccaccag cactggtcaa ctgatacaca agcttggagg tattgacaag cgtgtgatcg 60  
 agaggttcga gaaggaagcc gctgagatga acaagcggtc gttcaagtac gcctgggtgc 120  
 ttgacaagct gaaggccgag cgtgagaggg gtatcaccat tgatattgcc ctgtggaagt 180  
 tcgagaccac caagtactac tgcaccgtca ttgatgcccc tggtcaccgt gacttcatca 240  
 agaacatgat tactggtacc tcccaggctg actgtgctgt gctcatcatt gactccacca 300  
 ctggtggttt tgaggctggt atctccaagg atggccagac ccgtgagcac gccctccttg 360  
 ctttactct tggagtgaag cagatgatct gctgctgcaa caagatggat gccaccactc 420  
 ctaagtactc caaggctcgt t 441

<210> 10545  
 <211> 355  
 <212> DNA  
 <213> *Triticum aestivum*

<223> Clone ID: LIB31-015-Q1-E1-G4

<400> 10545

gtccaccagc ccccgccagt ccatcaccgc cgccaaccca agaactgaac catggcgaag 60  
atcaagccaa aggcattgct ggcacagagc aaacagaaca agggccctac ccagatcggc 120  
ctgttgagga tcatgacctt catcgtcctc ggcgccttag cagtgtcctc cgtttactat 180  
gcctatcagt actggcagag caaaggaccg gccgttgagg cagcagcagc ataatgcgcc 240  
gtgggaaact aaagccccag gaatgtactt gattttgctg ctgttggtgt agtgtcatgt 300  
cgtttttttc tgggtgttcgc agtccggtta atttgtgaaa cattgacaga gcatg 355

<210> 10546

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-H1

<400> 10546

ggtcgacagc acacactatg acccaatctt aatcagaaaa ttactcatat atccaacata 60  
tcgtccatca ctcatgtcga gcccaaagt ggcaccgat catgtccatg gctacttggc 120  
ccgggtcggg gcggggcagg gagcctgccg acgtcgggtg aggcttaaaa ccttgcagtc 180  
accctcgcca taatagccga tgtccgaagc agagtgaaca tagttgggag gcgcctggat 240  
ggcatcagct tcaccaatta tgttctcctc aacatgctct agtcctaaac tagcaccaac 300  
acccatagaa acctgaatgg cagccatgta acatagaaac tgtatggatc tcgatgacat 360  
aggcaaagt aatccaaatg taaaattcat tttaaaatat gaattattgt gaaaatgtac 420  
acatgtctga gaaacaacgt 440

<210> 10547

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-B6

<400> 10547

ctcgcggtgc gacgacatgc tgtacatcga gtcatgggac aggaacagga gcctcctcat 60

cggctatgca tgtctcttcc agagacactg aattcaccgg cgcggcgcct cactggagg 120  
 cagagttatt gatgccttcc tggctgctgc cgtctgaaaa cccattatg cttctagcct 180  
 tacgctcaac ccacttcagg ctccacctga taaaatttgt aagatcaact cggtagctct 240  
 tggcatcagt tgagctgcca ccgcaggaga ttccatctcc ctctcaccg cgttgctgca 300  
 ggcttagctt ctctgcaact ggttttgcag gttcatcagg gcccttggtc tttctagcct 360  
 gcagtctgtt ttctcggaa gaatcaccca gcaaggccct tggctctctc cgtggaggag 420  
 cagattttgc agattcatg 439

<210> 10548  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-E2

<400> 10548

tcgtgggtcg acatcagtcg cgtaaaatga gtcattctat ccatgtcggg tggccgtctg 60  
 tctgggtcag gatcgcgacc cagtgggcaa cagcaggtct gttcatctgg tcccttggtg 120  
 ctccccctct gttcccagac agggagttct agatcgacct ggtagctgca tagtgcatat 180  
 ctgctagtgc atcatctgat tggagccacc tacgtattgt atcgtatcga acgtgttttg 240  
 gctgtgatgg ctaagctgac tatctgtatt ctgggtctgta atattgtgta agcaaaccga 300  
 tggcaaggag ccggtgtttg tgtgacgttg tcgagtctgg tctgcataat gtgtgaccta 360  
 acgcattgtt gccagtattt caacagtga gatacgggtct ttggttgat atatattgaa 420  
 gttgatcaa 429

<210> 10549  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-E5

<400> 10549

gggctgactc cgaccagtac accgtgcccc aggggaagcg cgccatcgag cttctctccg 60  
 gcaaggagg catcatctcg cagatggtgg agacgacccc tcagaaggcg tacacctga 120

cgttcacgct gggctcggca ggcgactcgt gccagctgcc aatggctgtc atggcattcg 180  
 ccggcgacca ggcccagaac ttccactact ccccatggg caacgccacg agccaggccg 240  
 tgaacgtgaa cttcacggcg cgcgccgaga ggacacgcgt tgcgctctac agcgtctact 300  
 acaacacgag aagcgacgac cacagctcgc tctggggggc ggtgatagac gacgtccgtg 360  
 tctgggggctt gaatggggct gctgggttga aggcaagtat tgcgctgctt attgccatgg 420  
 ctagtgtcat cg 432

<210> 10550  
 <211> 291  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-016-Q1-E1-F3  
 <400> 10550

cgcacaggctc cgagactcgc gggtcgacat catgggtgaa agttactcca agtactgctg 60  
 gtatcagcag tacggacatt gatggggctg agtacaagtt gctggggagg tggaatgcac 120  
 ttcaggtatg tcatgtgtac ctgcaagtga aaatgcccgg gtttcagact gtgaatgttg 180  
 ctggttcggc ttaacataca aactggctgt ccattgtatt ttaaacaatca gtacatcaca 240  
 aattcactat gttatagtgc tcttcttaca tttgcagata tcaagttggt g 291

<210> 10551  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-016-Q1-E1-F6  
 <400> 10551

aggtagaacc aacacaacag aacaacaacc gttgtcgatg aagagtagtg tagatcagaa 60  
 aaaatccaac ctgaagacac gagaacatag acgaacgatg aacagatgcg agcaaatcca 120  
 ccgtagacag atctgccgga gacacgtcct cacacgccc cgggcgatgg aagcaccacc 180  
 gaaacggggc ctagagggga gaaccttatt ccatttttag ggagccgcca ccgcctcgtc 240  
 ttccttagca ggacagaaac cctaacaaaa ctcgaagaaa gatctaaaaa cggagccctc 300  
 ccaccagcag gaaccatgat ccactctgtt cccatgactc tacggccgca ggagacgagg 360

cagaccaccg acgggaggca tagaaaccct agcttt

396

<210> 10552

<211> 431

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-F7

<400> 10552

acaggtacag aactcgcggg tcgacattcg ggtgtatggt gtgcctaagg agggttagca 60  
actgtaggga gctcctatcg tcttgtctat tattaagtgc tgtaagcgtc agttcgcgcc 120  
gctgggcttg aactcctggc gtcgcacaag cgtaaccac tggaccaagc tcagtttggt 180  
gattacttga ggaaaacaga gcgctttgac ctttcattcg gtacaaacac tagacatatg 240  
ctagtattat atatccacca tagattattt gaataaagaa aacataaatt tgaaaaagca 300  
ttcacatata ccatgaattg aacagaaaag tttgcaaaaa atggaaaaaa attcaagaac 360  
ccaatagaa ttcaatcaaa tttgacaaga gttcaccaaa tttgagaaac tttcatctaa 420  
gttttacaaa g 431

<210> 10553

<211> 221

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-H1

<400> 10553

acaggaccga gactcgcggg tcgacacaga accataaact tctgctcaat aacattttag 60  
tactcacact ttttgetgat gacttcagat ctgaacctaa cggtaaaagt gccgacctta 120  
aatgaaccg ccaaatgcct aaaccaaact aagaacaact gggaagccag tccgttgcca 180  
caaggggctt taaaccaatt tttaagacac cttcaacaac c 221

<210> 10554

<211> 322

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-H2

<400> 10554

gggtcgacac gattatcaac agaggtggcg aaccaaaccg tcgaagctcg ttgatggctc 60  
ctacagtgtt cggaacgaat gaatcttctg tatgtatcta catatcacac caaaagggtta 120  
ccgaataaga tgtgtgattg gctttcgccg tgtacccata ccagcatcga ttctgtatca 180  
cttgtgtggt agtttgcaca aaacctgctt gaaaatgttt catggaaact tctttgcctg 240  
gcgatgatgc ctgtattgaa taataaatga ttcagtgtca caaaaaacaa aaaaacaggg 300  
ttaaaaaaaaa agcggccgct ct 322

<210> 10555

<211> 415

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-016-Q1-E1-H4

<400> 10555

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agaagcacta tcggaacggg gtagaacgtg ggaacatta ttctactaa gggatgtcgc 120  
cgccgccaca cagtcccaac caaaacgctg aacctaacaa gaacgagaac aaggtcctc 180  
ccgctggcgt gggggccgaga tcctccacac ctccacggcc tataggccat caaagatgtg 240  
gcaaactggc ggcggcgccg atgggaggag aagtgttttt cttgtcaagg aaaaaatgg 300  
cataaaagct ccaatttgac acatgtatct gcactactta atcattcata gttgttgggc 360  
ctacaaataa gaggtanggc tgacattttg caaaactgcc ctatagtaac ccggg 415

<210> 10556

<211> 358

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-A1

<400> 10556

gtcgacatca cgggcttact ggagtcctgc ccagttttgg tcgtcgaacg atgacgatac 60  
ccttcatact atgtgtaaata gccctggcg acgaacctgt ggcatgcaat ggccaaagat 120

tggcctagcc ctgatgtgga ttttgttcac aacaatggcc ctgaatggat gttctcctgc 180  
tctagccact cacagatacg ccacgcgtgg tggtgctgac catgtgacgt acttggcacg 240  
tccgtaacga gataactcgt cagaagaatc cgcacctac aaaggcctcc tgcagacttc 300  
tccattgata tattaattcc ctgatataata aacggcaaca gcctatcgct gatattgt 358

<210> 10557  
<211> 347  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-A2

<400> 10557

gggtcgacaa gattatcaac agaggtggga accaaactgt tgaagctcgt tgatggcttc 60  
tacagtgttc ggcagcgagc ggagtcttct gtatgcatct acatatacaca ccaaaagtta 120  
ccgaataaga tgtgtgtgat tggctttcgc cgtgtactcg taccagcatc gatcatgtat 180  
cagttgtgtg gttagtttgc gccatacccg ctcgaaaatc tttgctgaaa cttcttcgcc 240  
tggcgatgat gcctacattg aataataatg atccagtgtc agcaacggtg taacgaaaac 300  
agatgcatgt tcgtctaaat ctgtgggaaa tgttgcgtga taattgc 347

<210> 10558  
<211> 366  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-A5

<400> 10558

ctcgcgggtc gacgcacaac gcaacattca gtacgtagga tccttctctt gggagccagg 60  
gacaggtgga gaacgggaag gcgccatggg aaggggtgag ggagcgctgc cggaaagagt 120  
gggggatctt ccagacgagg atcgcgagg cgcacaaggc gtattacgag atgatgggag 180  
tcacctctcc caacgtaaca tctgtccact aggcgcgtcg atacatacaca gctgttaatc 240  
ctccctgtcc cccttttttg tcatctctag agcccttatt gtagtgagct taggtgaatg 300  
gtgatgatat tgatgatacg ttagagcat acacacatat cataccatat cagattaatt 360  
ctgtta 366



<210> 10559  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-017-Q1-E1-B1  
  
 <400> 10559  
  
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 caacggccag atgctcgcca tcaacgagat ctttgagaag aacccaccca ccatcaagaa 120  
 ctacggcatc tggctgcgct accagagcag gaccggttac cacaacatgt acaaggagta 180  
 ccgcgacacg accctgaacg gcggcgtgga gcagatgtac acggagatgg cgtcgcggca 240  
 ccacgtgcgt gccccctgca tccagatcat caagactgcg acggtggact tcaagctgtg 300  
 caagagggac aacacgaagc agttccacaa ctccaagatc aagttcccgc tgggtgtacca 360  
 gaaggtgcgc ccacccaccc gcaagctcaa gaccacctac aaggcgacga ggcccaacct 420  
 gttcatgtga tcgggtccct act 443

<210> 10560  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-017-Q1-E1-B3  
  
 <400> 10560  
  
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 cagcttgaga aggtgatcga agcagaaaag gaagctgcac gccagttggt tcagcaaaag 120  
 aagagagaca gagctttgat tgcactgaag aagaagaaat cccaggaaga gtcctgaaa 180  
 caagttgata catggcaa at gaatgtcgaa cagcagctgg cagatattga actagcaagc 240  
 aagcaaaaag ctgtattgga aagcctaaag actggaaatg ctgcccttaa gtctatacag 300  
 agtgagatta acatcgacga tgtccaaaag ttaatggatg acacagctga gaccaaggct 360  
 tatcaggatg aaataaatgc cgctctgggt gaacaactat ctgctgagga ttaggaggct 420  
 gtcatgggtg aatttgacaa c 441

<210> 10561

<211> 434  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-017-Q1-E1-B6  
  
 <400> 10561  
  
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 gacggcctca ccaacctgca gccccgcggc ggctgcgacg accccagcta cccttactac 120  
 ttcaagtgca agttatgttc gagggatgga tcagttgtga tgattcctgg gcaggggaaca 180  
 ccactaactg ctgagcagag ccagaaagga gagatgactt gtttgatggg ctttgaatgc 240  
 agaggctatg aacctattga gttcgctttt ggtaatggct ggaaggctga atctgtacat 300  
 gggacaccat ttgacattga tctttctgaa ggagagtttg atgagtatga tgagaaggga 360  
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 tttcatgggg aaga 434

<210> 10562  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-017-Q1-E1-C2  
  
 <400> 10562  
  
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 cccaacgatg agccgacacg tatttctctc agccaatgat gattttacac gtggaaaatc 120  
 cccattggtc ggggctgtta acggtttatc ggatccaaaa cccgacccga tagcttaacg 180  
 acgttccatt acggtggatg ccacgtgtcg gtcacccttg acgaaatcac ttttgtgaca 240  
 cgcgatttat cgtcatggaa gtgcacactt ctgtgatgat aattttggta aagtcatgga 300  
 acacttctac gatagcacag gtatgactat cttgattctg tcataaaatc gtcatggatg 360  
 tacatgcatg acanaaaaac gcgacctact gtgacaaaca cgtatcatca cggaagtgtg 420  
 attttttgta ntgattgtcc c 441

<210> 10563  
 <211> 446

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-017-Q1-E1-C3  
  
 <400> 10563  
  
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 caatcggttg ttacagcagt atgttacttt cctatgatat catgatggct tgcttatatt 120  
 actctcaaca ttactgaaa aaatattcat gctcataaca tgcttttctt aagattgact 180  
 ccaacttgat atgatgttgt aggcctcttg gtgcccctac ccttcctaata cccagaacct 240  
 ttcaaagtaa agtggcatgg cagttgcagg tggttactgg ctcgatcaga caacggcgaa 300  
 cgattgatga tcgttctcac gtaccggacg tgttgtttcg cggaatacaa tcatagtcac 360  
 tgcaaagggtc tttagagcagg atcctagctt ctttgggcct tcaagaattt ttgactggag 420  
 gctggtaagt agccttggtg cagcgt 446

<210> 10564  
 <211> 400  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-017-Q1-E1-C7  
  
 <400> 10564  
  
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 gccttctact ttggagcaag attcgggttt gacaaagaat ccaggaagcg gcttttttagc 120  
 atgataaaca acctccccac catatatgag gttgtcaccg gaactgcgaa gaagcaggct 180  
 aaagaaaaac accccaaaag cagcagcaag ataaataaat ctggcactaa gccatctcgc 240  
 cagccagaac ctaactcaag gggccaaag atgccaccac ctccgaagga tgaggacgac 300  
 agtggaggcg aggaagaaga gggagaagaa catgaaaagg cattatgtgg tgcgtgtaac 360  
 gataactatg gacaggatga attctggatc tgccgtgatg 400

<210> 10565  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-017-Q1-E1-D4

<400> 10565

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ttcctatcca gttttttacca ttttggggat cctcgtatat ggttttttgac tgtttttttca 120

ttatttttttc cttttttttct ttttagttta tattatgtta attttttttcc aatatacaaa 180

attttcaa at tttcaaaagt tatttggaa tgtgaaacat tgttaatgat ttccaaaatg 240

tttacaagtt tcaaaaattg ttttttggaa ttttaaaaag ttctttat tttcaaaaaa 300

cgaatagaac ttgtaagaaa atttctttta gaaaaaaaga acaaaaccta ttcccaattt 360

taaaaaagtg tttgaaattt tcaaaaactg ttgtgggttt ctataaattt attggaagtt 420

taaaaagtac aaaat 435

<210> 10566

<211> 342

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-E1

<400> 10566

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ttaccaaggc caagcaactg ctaggttggg agccaaagg atctctgaag gaaggccttc 120

ccttgatggt gacagatttc cgcaaaagga tcttgatga gtaatcaagg caacagtga 180

atgaatctat ttggttctga atgctgcgaa tataggcaaa cgcgcttcac caactggatc 240

cgttcagtac aattctgtgt ttgtataacg acctgtaga atcatttaaa tttgttttcg 300

tcttggtgag actggacaga agtaaccaat ggttttttgt cc 342

<210> 10567

<211> 425

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-E6

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caagcgtgcc gaggggtgaag cagaggccaa gtacctgtct ggcttgggta tcgcccgcc 180  
gcgccaggcc attgtggatg gcctgagga cagcgtcctg ggcttctcag tcaatgcgcc 240  
tggcaccact gcaaaggacg tgatggacat ggtgctgac acccagtact ttgacactat 300  
gaaagaggtt ggcgctcct ccaagtcctc ggcggtgttc atcccccatg gccctggcgc 360  
ggtgcgcgac atcgccacgc agatccgcga ccgtcttcgt cagggggccag tctgcctctg 420  
acaac 425

<210> 10568  
<211> 441  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-F2

<400> 10568

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cgtatattag atcgagtctg ttcgtcatac ctacaggcaa cgataaagcc acacaaaaga 180  
ttacggttag tgcacatcat ccgaaccaat ctgagccttt gcataatctt tttagggttt 240  
ttgcattggt gaatttgccg ttgcatcgtc gtgtcaagtt gatggtctta gagtcgagtc 300  
ttttagagtt tcgagttctg gtcataaatt gtcacgccgc cgccgcacca tcatcatcgc 360  
ccatctacca cttttgcata tccgccaacg ctctgaatcc atatctatat accaccacga 420  
atccgtattc atatatcacc a 441

<210> 10569  
<211> 443  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-F3

<400> 10569

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aaggtcgcgg atctgcagga ggccatccac gccaagacta agaagtatta tcctgctagg 120  
caacggctca ccctccctgc acagcctgga aaatctggaa agccagttgt cctcaatcaa 180

aaggccagcc tatcggaata ctgcgagaag gggtccgggt ccttgacagt ggtcttcaaa 240  
gatttaggcc cgcaggtcta ctacagcacg ctcttcttct ggggaatacgt cggccctctt 300  
atcatctacc ccatcttcta ttacctgccc gtctacagat actttggata tgagggggag 360  
cgggtcatcc accccgtcca gacgtacgcc atgtactact tctgcttcca ctacttcaag 420  
aggatcatgg agaccttctt cgt 443

<210> 10570  
<211> 385  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-G1

<400> 10570

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caaaaagata aggtcgggaat accggagttc tttctttgct tccaagaaca tagattcctt 180  
cttcaacca ggatcatgacc gagggcgggg atctcactcg catatctaga gccagcatc 240  
tctctgaac gacaccttct gcagactcta ctggtggtat ttcccgaggc gaggggtcaat 300  
atgtgcattc atatcgggtca ggaaacgaca atgactcttc ttctttccgg gaagctatgg 360  
gcacctcaca attcttatac gacat 385

<210> 10571  
<211> 316  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-G3

<400> 10571

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tgtgacatcg ttgccttcaa caagatctag aatctttggt caccacttg ttgctgctgg 120  
attcttggtc ctgggatctg tcgatctgga aaacattatt gtcgtcccat ttagttaccc 180  
ctcttacaga aatgctgctg gttttgtttt tgagtgatgc cctgggtcttg aatgtctgct 240  
acctttaaat agttgaactg ctgagcgggt tgtaatggcg aaacatctat catgtggagt 300

aaaatcagtc tttgat

316

<210> 10572

<211> 436

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-G4

<400> 10572

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tgtagtactc ctacaaacca taccgcccga cgcacatca gttttcttca agaggacgag 120

ggagaagcgg atttgtagtg gaggcgcttt aaaaaaagga tttgtagtgg aggccctac 180

cctaggggtgc cctaggtagc taccgcacac atcattgggtt ttcttttttc tttatactct 240

tgccgcctag agtgaaatga tgggtgcttc atccgtccaa cttaatgcgg gaaaggtggg 300

gctttgtgat ttgacccctc atcgctcatt tactactatt gcggcgctac gaccgggggtg 360

cctccaagtc caaccgctgc tccgaactat aatttggtgc atcacgctg gaacaagatg 420

gtggatgagc cacatg 436

<210> 10573

<211> 380

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-G7

<400> 10573

tcccggtgcg acacatcacc taaaggagag gctaagggct gcttatgcgg acaaacaaca 60

tgccgaatgg caggaagccg ctggatcatca tgtatcgaca caaaccatta atgagaagaa 120

caaactaccg gatgcaaata tcaagcaagc cgaagaactg aaggatttaa gagcccaact 180

atcggtatgct ttcaaggaga acaggaagct gagaggcagc atattcagta tgctctttaa 240

cctgactgtc acatggtctc ctgtttgaaa atttgacaag tttacttctg taggtgtgct 300

aatcagacac cccgaaggag aagtgtctgg attccaaggc gaccagctac aagagctatc 360

aaaggtgcac gaacaagcac 380

<210> 10574  
 <211> 431  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-017-Q1-E1-H1  
  
 <400> 10574  
  
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 tctgtgagta gagagaagca tgatgcatct gctgccaatg ccagcgccac ctcttcgaaa 120  
 cccaccacct cggccaaggc tccagaacca ccaaagggtt ccaacaagtc ccggaagaaa 180  
 aagtcgaggt cttaggcgac aaagttgtta tgtcacaaat taacagtata caaaggacac 240  
 tgtccatttt agtatcttga cttgattttt ttgtgttatc tgcattggat tggcctgcgc 300  
 tgtgccttta gaaccatggt tatggcgact tgagatccta gacttggtgc aaatttttgt 360  
 taaagggtgc tgacttacct ggtttgaaat tcccttcctt tcaatacaat aataaatttc 420  
 cttgcaattt t 431

<210> 10575  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
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 <400> 10575  
  
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 cagtacactg tgtacgagat ctaccgcgag ttcaaccagg agatgtatca cgctaagggt 120  
 gatattctatg atcggcagaa caactccacc cacgagttgc atgcctttga gggatttga 180  
 gtgactgtcg agatggcagt acaggagggt gcctatgttg ctatcaccag cctccgtaga 240  
 gggcatccac gcttgaggga gactgggttc agatacttcc cgtaccacc agctggggat 300  
 gatactangc ggtacactgc tgtgtgtacc ccttacgtga gccgccggta cgacccttag 360  
 tatatgggtc gatacaatga ggttctggat cgcactgttc gagctttgac tgttgagctg 420  
 tacgccacgc gtgcacgcca ctacgacact ctg 453

<210> 10576



<211> 418  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-017-Q1-E1-H3  
  
 <400> 10576

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 gcagcgcccg cagccccaga gaggcagaga gagacggagc tccaaccaag gaataatagt 120  
 tcaaacagca acgtgacatc agcagggtcc tccagcttaa cctcttcaga gaatggacct 180  
 gaatattcaa gcccggtagc acaatgatga gtggatccct agcttttagc tgaaagcttt 240  
 gtagctgcaa cggtttgagc ctaggagatt gaagtgcctt gcggtttttg tacgctcgct 300  
 tgccttccc aacctgatgt atgaaaatta tgtggaagag tccacagctg ttatataagg 360  
 aattttgggg ctgggaatcg tttgtaagaa acattgtaga ataacttctg gttcactt 418

<210> 10577  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-017-Q1-E2-A9  
  
 <400> 10577

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 ccgccgcttc cttgtgttgt tcatcaaccc aggtcaatgg gtttgggtctt aggcctgaaa 180  
 gggtgcttct ttaccaaccc acttcctttt ctttctccag aaggagaact catggaattg 240  
 tcaaggcctc atctcgggtt gatagggttt cgaaaagtga tatcattgtt tctccctcta 300  
 ttctctcggc taatttcgcc aaattaggcg agcaggtaaa agcagtggag ttggcaagtt 360  
 gtgattggat tcatattgat gtcattggac gtcgttt 397

<210> 10578  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-017-Q1-E2-B1

<400> 10578

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atctggctgc gctaccagag caggaccggt taccacaaca tgtacaagga gtaccgcgac 180  
acgaccctga acggcgggcgt ggagcagatg tacacggaga tggcgctcgcg gcaccacgtg 240  
cgtgccccct gcatccagat catcaagact gcgacggtag acttcaagct gtgcaagagg 300  
gacaacacga agcagttcca caactccaag atcaagttcc cgctggtgta ccagaagggtg 360  
cgcccaccca cccgcaagct caagaccacc tacaaggcga cgaggcccaa cctgttcatg 420  
tgat 424

<210> 10579

<211> 441

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-B12

<400> 10579

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agtttttcgt agattagatc gagtctgttc ttcataccta cagtccacga aaaagccaca 180  
aaaaaaatta gggttagtgc atcatatccg aaccaatctg agcctttgca taatcttttt 240  
agggtttttg cttggttgaa tttgcgggtg catcgtcgtg tcaacttgct agtcttagag 300  
tctagtcttt tagagtttcg agttttggtc ataagttgtc acgccgctgc cgcaccatca 360  
tcatcgcccg tccaccactt ttgcttatcc gccagcgtc tgaatccata tccatatacc 420  
accaccaatc cgtatccata t 441

<210> 10580

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-B2

<400> 10580

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 ccgcgaggggt tggcaactct gcgtaacga gggcgaagca ccggctcttc gaggatttgc 120  
 aggtgctgac acattggacc aacaccatga taatggcaac tctgcctcgt taatgtcggc 180  
 caccaacgat gataaggcca aaccgccccca catggccatt gacctcacct ccaacgggag 240  
 gaatagatta ggttttcagt tgtttttagg gttttctttg ttatgtataa attacttcga 300  
 aatgattgaa aaatcgggtgt ccaccttatt tgattactct ggttggaatg gctccgcccc 360  
 gctggctatc cacaacatg tccgacaatt tttttgaagg cgtacttatt tgtattcaag 420  
 caagcggcaa accaatacat gtacaat 447

<210> 10581  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-017-Q1-E2-B3  
 <400> 10581

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 ccagcagcag cttgagaagg tgatcgaagc agaaaaggaa gctgcacgcc agttgggtca 120  
 gcaaaagaag agagacagag ctttgattgc actgaagaag aagaaatccc aggaagagct 180  
 cctgaaacaa gttgatacat ggcaaatgaa tgtcgaacag cagctggcag atattgaact 240  
 agcaagcaag caaaaagctg tattggaaag cctaaagact ggaaatgctg cccttaagtc 300  
 tatacagagt gagattaaca tcgacgatgt ccaaaagtta atggatgaca cagctgagac 360  
 caaggcttat caggatgaaa taaatgccgc tctgggtgaa caactatctg ctgaggatga 420  
 ggaggctgtc atgggtgaat ttgacaactt gg 452

<210> 10582  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-017-Q1-E2-B9  
 <400> 10582

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agtgatgcta tcttcggtga cattgaaacc agctgggttc acggtggaga agacggcggc 120  
 tagaggatta ccgtcgctca caagagctcg tccctccttc aaaattgtcg ccagtggcgt 180  
 caagaagatc aagaccgaca agcccttcgg aattaacggc agcatggact tgagggacgg 240  
 cgtcgacgcc tccggcagaa agggcaacgg atacggtgtt tacaagtacg tcgacaagta 300  
 tggagctaac gtcgatggat acagtccat ttacaacgag aacgagtggc cagcgagtgg 360  
 tgacgtgtac aaaggaggaa tcaccggatt ggc 393

<210> 10583  
 <211> 301  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-017-Q1-E2-C12

<400> 10583  
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 cagtggataa gacggcggt agaggattac cgtcgctcaa cacagctcgt cgctccttca 180  
 agattgtcgc cagtggcgtc aagaagatca agaccgacaa gcccttcgga attaacggca 240  
 gcatggactt gaaggaccgc gtcgacgcct ccggcagAAC aggcaacgga taccgtgttt 300  
 a 301

<210> 10584  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-017-Q1-E2-C2

<400> 10584  
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 ttggtcgggg ctgttaacgg tttatcggat ccaaaacccg acccgatagc ttaacgacgt 180  
 tccattacgg tggatgccac gtgtcggtea cccttgacga aatcactttt gtgacacgcg 240  
 atttatcgtc atggaagtgc acacttctgt gatgataatt ttggtaaagt catggaacac 300

ttctacgata gcacaggtat gactatcttg attctgtcat aaaatcgtca tggatgtaca 360  
 tgcacgacaa aaaaacgcga cctactgtga caaacacgta tcatcacgga agtgtatatt 420  
 tttgtagtga ttgtcccaaa taaaa 445

<210> 10585  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-017-Q1-E2-C3  
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 ctctcaacat ttactgaaaa aatattcatg ctcataacat gcttttctta agattgactc 180  
 caacttgata tgatgttgta ggcctcttgg tgcccctacc ctccctaata ccagaacctt 240  
 tcaaagtaaa gtggcatggc agttgcaggt ggttactggc tcgatcagac aacggcgaac 300  
 gattgatgat cgttctcacg taccggacgt gttgtttcgc ggaatacaat catagtcact 360  
 gcaaaggtct ttgagcagga tcctagcttc tttgggcctt caggaatttt tgactggagg 420  
 ctggtaagta gccttggtac acgctct 447

<210> 10586  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-017-Q1-E2-C7  
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 atgataaaca acctccccac catatatgag gttgtcaccg gaactgcaa gaatcaggctc 180  
 aaagaaaaac accccaaaag cagcagcacg ataaataaat ctggcactaa gccatctcgc 240  
 cagccagaac ctaactcaag ggggtccaaag atgccatcac ctccgaagga tgaggacgac 300  
 agtggaggcg aggaagaaga gggagaagaa catgataacg cattatgtgg tgcgtgtaac 360

gataactatg gacaggatga attctggatc tgctgtgatg cttgtg

406

<210> 10587

<211> 402

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-C9

<400> 10587

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agcttatggc tccgtagaaa ctatgctgat accgtcctgg tgagagttgt ggattcatta 120  
ccagaagtgt atccgaaggt agagacttgg atcgagaatg tgggtgttga agaaggtaat 180  
gcaacaatac ttacactctt tgtctgtctc atcacaattc tctatctccg ggaaagacaa 240  
cgtagacaag tcgtcgttgt tgccgatcca gtggctgctg acgtggcaca accgctcgac 300  
gctgatgtgg cgcaacacct cgctgcgttc ccacggtaat caattgataa tcgttttcgt 360  
cattgtaata gcagagaata atggcttttt ggtgtgtttt tt 402

<210> 10588

<211> 408

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-D3

<400> 10588

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gatgaggggtg gctgcaaacg agaaggcaga ggctgataac attgtccaga tcaaccgtgc 120  
cgatggtgaa gcaaaggcca agtacctgtc aggctgggt aacgcacgcc agcgccaggc 180  
cattgtggat ggccggacgg acagcgtcct gcgcttctca gtcaatgtgc ctggcaccac 240  
tgcataggac gtgattgaca tggtgctaata caccagtagc tttagacta agaaagacgt 300  
tagcgcgctc accaagtcct cggctgggt catccccat ggccctggcg ccgtgctcga 360  
catctccacg cagatccgcg atcgtcttct tcatgggcag tctgcctc 408

<210> 10589

<211> 397

<212> DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB31-017-Q1-E2-D4

<400>      10589

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tttccctttt gtccttttag tttatattat gttaattttt ttccaatata caaaattttc   180

aaattttcaa aagttaattg gaattgtgaa acattgttaa tgattttcaa aatgtttaca   240

agttttcaaaa attgggtttt ggaattttta aaagttccta attttttcaa aaaatgaata   300

gaacttgta gaaaatttct tttaaaaaa agaacataa cctattccca attttaaaaa   360

agtgtttgaa attttcaaaa actgttgtgg gtttcca                                397

<210>      10590

<211>      405

<212>      DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB31-017-Q1-E2-D9

<400>      10590

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aagctatgaa ggtttttaat cttgaccgtg gaaacactct ctctgttttc ctcttctcgg   120

gtgtcaccaa ctccaaggag ctcttgaatt caatgcttga cggaagtctg aagctggagg   180

tctcatttct caatgcatca cttattccag acatttttcc tctattggct gctgctcaga   240

aagcaattat ctccaaatca cgcgattcct tatcaaccag aactcttcat tctgagcttg   300

tctacaatta ctcaggatct aagcacatta cagaatcatt gaaacgatgt gggatttctg   360

agaacactac ttacattcta gctgcccggg tcaatgcttc tcccg                        405

<210>      10591

<211>      390

<212>      DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB31-017-Q1-E2-F11

<400>      10591

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 tgtgaagaaa atgtatgtgg aaacataaac ctagctgtta tatgaccatc ctgacttcct 120  
 ttaggaagat attcaaagca gtgcaatctt tggtgcccac ctgccataac acatttcctg 180  
 aggttctcat atttcctttc atgtcagaac aatatccaag aaatcgtaca atattcttgt 240  
 gcttcgcctt catgagacac tcgatctctc ctagaaattt ttcctcgtgc atgtacgtat 300  
 tgatatgtct ctctagaaa attttctctt ttaccgaaaa agggtttccc cccgctttgt 360  
 atacagagca accaaccgaa ccatccaacg 390

<210> 10592  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-F12

<400> 10592

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 tatcaagtgg gatcagattt tcaggttgct cagtgggatt ttatagtttt tcgtagttta 120  
 gatggagtct gttcttcata gctacagtct accacgaagc cacaaaaaaa ttatgggtgag 180  
 ttcatcacat ccgagccagt ctgagccagt acataatctc tttagggttt tgcattgtag 240  
 aatttgcggt tgcacgtcgc tgtctagttg ttggtcttag tgtctagtcc tttagagttt 300  
 caagttatgt tcacaagtag tcacgccgcc gccgcatcat catcatcagc gctgccatag 360  
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<210> 10593  
 <211> 459  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
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<400> 10593

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gtattatcct gctaggcaac ggctcaccct ccctgcacag cctggaaaat ctggaaagcc 180  
agttgtcctc aatcaaaagg ccagcctatc ggaatactgc gagaagggtt ccgggtccct 240  
gacagtggtc ttcaaagatt taggcccgc ggtctactac agcacgctct tcttctggga 300  
atacgtcggc cctcttatca tctaccccat cttctattac ctgcccgtct acagatactt 360  
tggatatgag ggggagcggg tcatccaccc cgtccagacg tacgccatgt actacttctg 420  
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<210> 10594  
<211> 375  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-017-Q1-E2-F9

<400> 10594

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tagaatttcc cgtcataatc acagagaaag actcgatttt tctcatagaa accatagatt 180  
gacaataact agaaagcagc aacctttgtc tttcaacacc gtgtgttttg ccgcagacga 240  
gccctccgaa atcagtgtcg atgctagaat ccgtagtgag gttctgtctc cgttcagatt 300  
agtccgtatg ttcttctacc tcgcctttat agcaagcggg tcattangag gactaatagc 360  
cacttctagg ctcat 375

<210> 10595  
<211> 450  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-H2

<400> 10595

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gcagaacaac tccaccacg agttgcatgc ctttgagggt attggagtga ctgtcgagat 180

ggcagtacag gaggttgcct atgttgctat caccagcctc cgtagagggc atccacgctt 240  
ggaggagact ggggttcagat acttcccgtc cccaccagct ggggatgata ctaggcggta 300  
cactgctgtg tgtacccctt acgtgagccg ccggtacgac ccttagtata tggttcgata 360  
caatgaggtt ctggatcgca ctgttcgagc tttgactggt gagctgtacg ccacgcgtgc 420  
acgccactac gacactctgg agcagatgcg 450

<210> 10596  
<211> 441  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-H3

<400> 10596

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atagttcaaa cagcaacgtg acatcagcag gttcctccag cttaacctct tcagagaatg 180  
gacctgaata ttcaagcccg gtagcacaat gatgagtga tccctagctt ttagctgaaa 240  
gctttgtagc tgcaacggtt tgagcctagg agattgaagt gccttgcggt ttttgtacgc 300  
tcgcttgccc ttcccaacct gatgtatgaa aattatgtgg aagagtccac agctgttata 360  
taagggattt tggggctggg aatcgtttgt aagaaacatt gtagaataac ttctgtttca 420  
cttttatttt tgtaatatct t 441

<210> 10597  
<211> 154  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-A10

<400> 10597

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tgtaacattt actgtacgat tgaactgtgc tttcttagac ggagatcaat ctttgtacag 120  
tgatgttaga atatcacttg aagtgaacat ctca 154

<210> 10598

<211> 417  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-A3

<400> 10598

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 aacaatacca acttgccggac gacaaggtag tacaactacc aataccaaac tactcctggc 120  
 cctagtgttc gtcgggtaga aaatcttgca gaggaccagt tcccgtect tctcttgctc 180  
 caggtccccg atgtggtact ggtgtatcac ccagttgggc ctctgctggt cgaagttctt 240  
 gttggtgtgc agcgccagaa ccttttttgc tgcccgtctg ccggccgttg accatcacag 300  
 gcaaggtatt gccggtcttg tgccacatcg cgtgcgtgcc gcactccgac tgtatctcgc 360  
 gacacgtcca cgtgcccctt ttgatcgccc tggaagtgcg ttggaagaaa tgcttcc 417

<210> 10599  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-A5

<400> 10599

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 atgcaacaag gagcggctag cactataaac ttaagatatg atgatatata tggcacctca 180  
 ccttggtggt ttcgccaaga acaaagctgt gaggtctggc ggtgaccatg gttgctactt 240  
 ccgcccacaa cacacacttt ccgtcctgaa cccatccaag atttttctcc tctcctgct 300  
 gctgctgctg ctgcgctttt gacagcaagt cgctcacgg cggcaaatcc aggtgagctt 360  
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 cctttgtttt tccgtgtgcc gtt 443

<210> 10600  
 <211> 402  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-018-Q1-E1-B1

<400> 10600

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ttcatggggag tcctaaagaa atatgtccgt aaccccgcta ggccagaagg aagcatctcc 120  
atggggccatc aaacagagga tgtcattggg ttttgtgttg acttcattcc tgtccttaag 180  
aagatagggtc tccctaaatc gcggaatgag gggagactga ctggaaaagg catgctanga 240  
gcggaactcaa taatatgcag ggacgggcat tcttgggtctc aagcacacta cacagttcta 300  
cagaactcta ccttgggtgac accgtatgtc gatgaacata agaacagtct gtgggtccaaa 360  
cacccggagc agtgcgacga ctggattaca tgtgaacaca tc 402

<210> 10601  
<211> 419  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-B10

<400> 10601

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tggaaaatgc ctacaagttt cccaacctgc gctgccgggg gtgggcgtgc agaaccaagc 120  
ttccatccaa cacagctttg cgagggtttg gctttcccca ggcagggtg atcaccgaag 180  
cctgtatcac agaagtggca gccaaatgtg ggttgcccc tgagaagggtc cggatgatac 240  
acatgtacaa ggaaattgat caaacaccct acaaacagga gattaatacc aagaacctga 300  
cccagtgttg gaaagaatgc atggccacgt cttcctacac cctaaggaaa gcagcgggtg 360  
agaaattcaa ctcggaagaat tactggaaga agaagggggt ggcaatgggtc cccctgaag 419

<210> 10602  
<211> 433  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-B11

<400> 10602

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aagcattgct gccattcttt gacagtgttt atcaaggatt tgcaagtga agccttgaca 120  
aagatgcca atcagtgcgc atgttcgtcg ctgatggagg tgaattgctc atggctcaaa 180  
gctataccaa gaacatggga ttgtatggag agcgtgttgg tgctttaagc atcgtttgtg 240  
ggagtgtga tatagctgtt aaggttgaaa gtcaacttaa gcttgtaatt aggcctatgt 300  
attcgaaccc tctcttcat ggtgcttcta tcgtggctac cataactaag gacagtgcga 360  
tgttcgacga atggactctg gagctgaagg ccatggctga taggataatt agcatgaggg 420  
agcagctttt taa 433

<210> 10603  
<211> 348  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-B7

<400> 10603

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gcggtgacta gctgcaattc acgaaggcat aacattggca ctgagttgga cagaattgga 120  
ccttgtggta gagagcgatt gtgcggatgc gctacatttg atctctgctg tggggaaaga 180  
tcggtcagct cacactcata aagtcatgga gattagatcc ctgctagctc aagaaagaag 240  
gatccagtta cagaagatta agcctagtgt aaatctcgct agccacactc tcgcccattt 300  
gggacgtact caacagcgga ctgctgttta gctgcgtaac cctcccga 348

<210> 10604  
<211> 443  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-C11

<400> 10604

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gagaacattg gcaagaagct tgtgaactcg cgggacggac cagtgcacct tgagcagcca 180  
aagatgacag tcgagaagct gctagagtac gggcacatgc tcgtccagga gcaggacaat 240

gtcaagcgtg tgcagcttgc tgacacctac atgagccagg cagctctggg tgatgctaac 300  
caggatgcga tgaagactgg ttccttctac ggtagaaca ttctccatac acaccacca 360  
tctcttgctg cataggagga ggtaaagggg cacagcaagg tactttgcct gtgccggcag 420  
gatgcaccga ccagactgcc aag 443

<210> 10605  
<211> 391  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-C12

<400> 10605

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gataagccta tgtacaccga gaagcccacc aagtacgccg gcagcccgat gagcgggtggc 180  
gcaccgcgct tcagccacca gcctcgctat gttgggatgt caagcttcaa gaatcgagca 240  
aatcctgcgc ctgcagtgat gcattgctct ggctgccgcc gccgtctcat ctttcaagtc 300  
ttcttctacg agtagtaagt aatggtgtcc gtttgtatat gatattaagt acgtacaaat 360  
gaaatgacct aagaaaaagg caacaaaatg c 391

<210> 10606  
<211> 444  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-018-Q1-E1-C4

<400> 10606

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cacacatact atctcttgta cagtgtatat atatcacaat atgtaaaatg gtagcagtga 180  
gttggtgaga catccagcac gtttgtttct tgatgaagca cttgtcgagg cgcttcaagc 240  
cttgttggca atgttggttg agagccagtc aagtcctctg tacaaccctt cgccagacgt 300

cgcacaaagtg ctctgaatgt accagtgccg ctggcgcaag gaggcagac caagcttgct 360  
 ggtgatttca gcagcattca tggcattagg aagatcttgt ttgtttgcaa atacaagcaa 420  
 cacagcatca cgcagctcat cctc 444

<210> 10607  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-018-Q1-E1-D2  
 <400> 10607

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 tatttggccc cgtcaaattt gaggtgttct tgcctgacct taacacttgg tttctgtatg 120  
 atacatcagt gctctttgag gcaaaagttt ctcgaccaca catgtttata gatggagcat 180  
 tgtatgtgca cacaggtttg catgacattc tggccttgga ggaaactagt tctggcattc 240  
 cgccgtctct tccgactatt aagttgccgc atgaagatgg tgcctttatg ggtaggtttg 300  
 gccaatgttg ctttggccaa tcttcggggg gcttgacta tgcattgcca gaggaggatg 360  
 ctcgtacgat tcttgtttgg agtcttgatg ttgatgagcc ttatgagtgg agcctcaagt 420  
 aacgcctcaa tatgagccaa gcat 444

<210> 10608  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-018-Q1-E1-D3  
 <400> 10608

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 agaggttcat gggagtccta aagaaatatg tccgtaatcg cgctaggcca gaaggaagca 120  
 tctccatggg ccatcaaaca gaggatgtta tccgggtttg tgttgacttc attcctggcc 180  
 ttaacaagat atgtctccct aaatcgcggt atgaggggag actgactgga aaaggcactc 240  
 ttggaagaga ctcaataata tgcagggacg gatattcttg gtctcaagca cactacatag 300  
 ttctacagaa ctctaccttg gtgaccccgat atgtcgatga acacaagaac agtctgtgct 360

ccaaacaccc ggagcagtgc gacgactgga ttacatgtga acacatcagg actttcagca 420  
gttggttga aacacgtctc 440

<210> 10609  
<211> 446  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-018-Q1-E1-D4

<400> 10609

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ccggcggtgtt ggaagcattc cataatggcg agggcaagtg ctatcaggcc aagggtccgaa 180  
cagaggagga actgaagaag gcaattgagg catccctagg acccaacaag gacagcctgt 240  
gctttataga ggtaattgtg cacaaggatg aactagtaa agagcttctt gagtgggggtt 300  
ctanggtttc cgccggaat agccgcccac caaatcccca gtgacacatc aggtctccac 360  
aagatcctca tccagcttaa tgatgtcatg tggaagttct gaatagatgt tactgttctc 420  
tgaataaatc atccatttga gtccat 446

<210> 10610  
<211> 425  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-E1

<400> 10610

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tttctaagcc cgccctgata tgctgttatt ttggctgtct gggactaagt ttgctctact 180  
gtgggctttg catccatctg cttggcgtac cgcgtgatat atgcagtga taatttttagc 240  
ttgggggtttg tcggttggtg atgtgtcgaa ggggaaaaat ggatttacta tgttttcttt 300  
ttaatgtttg gcatcgctc gtatcaaact cagccgctct ttcgctgagt aatgtacatt 360  
tgcttggtca tggtaacttg tgggttctgc tgctgttcta ttgaaagatg attgcaattt 420



tagct

425

<210> 10611  
<211> 443  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-E2

<400> 10611

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cctgtttgat gagatgagtt tgcatttgtt ctaaaaatgt tggaaacaga agtttgccag 180  
agaagagtct gaagatgatg tcaagaaact tctggatttc tttaagaaaa tgcagaagat 240  
aaaccagag ttcttctatg attaagaagt tgatgcagat aaccgtgtaa gaaatgtctt 300  
ttgggtgaac acaagttgca aaggatcgta tgaagatttt ggagactgcg ttacatttga 360  
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tcattctatag agcaccatat ttg 443

<210> 10612  
<211> 433  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-E6

<400> 10612

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ctgtatctga tgccaacaaa gcaattgaac ttgatccttc gatgcataaa gcataccttc 180  
ggaagggctc tgcttgcatt aagctggagg aataccaaac tgcaaaggct gctcttgaag 240  
tgggttcttc atatgcatct ggtgactcga ggtttactcg tctgatgaag gagtgtgatg 300  
atcgtattgc tgaggaggct agccagggtc cagtaaagaa tgccgctgca gctgttgctc 360  
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aggatggtgc aaa 433

<210> 10613  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-F11

<400> 10613

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agttctacct cagaaatcaa ccgtccaaca gtgacatcga cacaatgcta caaatgcagg 180
atgacaacgc ccgttctttc atgactccca cgatagacgg cggcttcata cagcgtccgg 240
tcccttgagt cgagttgtct agttctgaaa catcgattgg ctcatgttgt aattaaactt 300
taatgaactt gtagtatgtc tctttggttt cgagagtcgt tcaacttaga tgtaatcgat 360
gctattaatg tcttgctttt ctcttcgat cgttctgtta catacttata tattgcttat 420
gtattgtctg tgaattggta ct 442
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<210> 10614  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-F2

<400> 10614

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agtttagatc gagtctgtcg tcatacctat agtcacgaa aaagccacaa gaaaaattta 180
gggttagttc atcatatccg aaccaatctg agcctttgca taatcttttt agggttttgc 240
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gtgtttcgag ttctggatc aagttgtcac gccgcgcgcg caccatcatc atcgcccttg 360
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accaccaccg atccatatcc atatact 447
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 <211> 376  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-018-Q1-E1-F5  
  
 <400> 10615  
  
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<210> 10616  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-018-Q1-E1-G2  
  
 <400> 10616  
  
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 caagaagctt atggaacatt tcgttctacc tccggaatac aacaaattcg atgaggaggg 240  
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 gatggccgac gcattccgga aattcaagca aaatctagcc catgactttg tcaagcagaa 360  
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<210> 10617  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-G4

<400> 10617

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gcaggtgcta tgcacgacta cccaccaggg ccaccaactg ccgtaagaag aagtgtggcc 180  
ataacaatca gctaagggaa aagaagaggt ttatgtccaa gtttgccaac gcttcctaaa 240  
cgttggaaat atgctgaatc aaccgtctag cgtcatatat attggagttt aagttctgtc 300  
ccttgtttga agtcatgttg gatttcgctg aatcgtctag cgtcgtcata tatagtggag 360  
tctaagattt gtccagttga tagtcctgtt ggattttgaa cctatgtatg ctttggaata 420  
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<210> 10618

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-G6

<400> 10618

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ttcctggcgc aaggaaacgg atggggatgg cctccttcac cgggggtcgaa caccgggtgtc 120  
gatggagcac catttctttg caaagtgttt tcgagagaac aaggaaggga gaggtgtggag 180  
tttatgcggg gtggaagagg aggtggaggt gcacaaaaag gaggggctgc agtttttggga 240  
aactgatggg atttatggga aagagggatg gctgtttctc ttcgttaggt gtggctgtac 300  
gtttcttcgc tgtgtgtctg tgtgtgtaga gggagcggag ggagcggtag agaaggaaga 360  
ggaaggagaa gatgcgctgg gtgggaggaa aaggaagtgg agagaaatag acgaaggagg 420  
aattaaagga 430

<210> 10619

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-H4

<400> 10619

gtcgacagcc ggtggtaaatt ctggtgatag ctcccctaatt aagctcgaat ctttccctga 60  
tctggagggtt ctccgtcgcc ttgttccatt tgtccgtcgc tgcgtggag atggggacag 120  
aaagtggaag aggtggagcg caagtctgtt tgcattgggt ttgtgcatat tctcatcggt 180  
gcttggagtg gagctacggc gccactgga gctgccggtc tccgacgcct ccccggtgac 240  
ctttctggcc gaagggcggc ctggtgaagc catgctgact ttgtttcttc ctctggctt 300  
gatgccattt gagaggcagc tgttcaactt caacatggag tcctcttctt ccatctttgt 360  
ccggagatgg agtagcggcg gtccggtgat cccaagtggc cacgtcctcg gtgatggcg 420  
gactggatct acgctggag 439

<210> 10620

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-A10

<400> 10620

cgggtcgact gctacctctt gagcactgcg ttggttttcc cttgaagagg aaagggtgat 60  
gcagcaaagt agcgtaagta tttccctcag tttttgagaa ccaaggatc aatccagtag 120  
gaggccacgc tcaagtcctt tgcacctaca caaacaata agaaccttgc aaccaacgcg 180  
ataaaggggt tgtcaatcct ttcacggcta attgcaaaag tgagatctga tagagatgat 240  
aagataatat ttttggattt tttatgataa agattaaaag taaagattgc aaaataaacg 300  
gcgaaagaaa tagcttggtg acggaagatc aatatgatgg aaaatagacc cgggggcat 360  
aggtttcact agtggcttct ctcaagatag cataagtatt acggtgggtg aacaaattac 420  
cgtcgagcaa ttgatagaat 440

<210> 10621

<211> 433

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-019-Q1-E1-A11

<400> 10621

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cttcccatca ctaggccatc cgagaatgac acattgggtgg agtgatggat aaggctccgt 120  
tcgtttcaga aagatgacaa aagagggttc aactcctaga tggcatgcat agcttagtga 180  
tacgtccatt ttgcatcatg cttttatact gatatttatt gcattatggg ctgttattac 240  
acattatata atagtactta tgcctattct ctcttatttt ataaggttta catgaagagg 300  
gagaatgccg gcagctggaa ttctggattg gnaaaggagc aaatattaga gacctattct 360  
gcacaactcc aaaagtcncg acacttcaca gagcttatat ttggaatata taaaaaatat 420  
tgggcgaaga aag 433

<210> 10622

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-A2

<400> 10622

gggtcgacga aggacatgaa gacggcgaac gaggacgggg gaatggtata gaagtcagca 60  
cgaacgaaga gaattatttc accccttcat gcgtcacctt aagtgcgacg gagatcgatc 120  
aattcatcaa gtgccttatg ggaatcaaag tcaattccgg ttactgtggg aagataagca 180  
gatttctaga cccccaagaa taaaagcttc aactggatga actcacatga ctgtcacgtg 240  
atgatgacat aagtactcct ggttgccatt agatggataa tggagaagca catccatgac 300  
atgcctaata gtctctgcaa catcttcgac attaactctc gatagtccat aattgtgaag 360  
cagctccgaa tgctatacga agagatgagt gtcataatac gtgagcttga catgtacgta 420  
ctgcccgtgta 429

<210> 10623

<211> 450

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-019-Q1-E1-A3

<400> 10623

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ctctatcaag tggatcaga tttccagggtc gtcgggtgag attttacagt ttttcgtagt 120  
ttagatcaag tttgttcttc atacctatag tccacanaaa aagccacaaa aaaattaggg 180  
ttagttcatc atatccgaac caatctaagc ctttgcataa tcttttttagg gttttgcttt 240  
gttgaatttg cgggtgcatt gtcgtgtcca gttgctgggc ttagcggcta gtcttttaga 300  
gtttcgagtt ctggtcataa gttgtcacgc cgccaccgta ccatcatcat cgcccctgcc 360  
acctaccacc accgctccga atccgtgtcc atataccacc accgattcgt atccatatac 420  
taccaccgct accaacaccg ctaccatata 450

<210> 10624  
<211> 454  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-019-Q1-E1-A4  
<400> 10624

ccgggtcgac tgccacaaa acgatatcca tcatctcatc gaaagacggg acacctttgc 60  
ctctatcaag tggatcaga tttccagggtt gtcgggtgag attttacagt ttttcgtagt 120  
ttagatcgag tctgttctac atacctatag tccacgaaaa agccacaaaa aaaaattaggg 180  
gttagttcat catatccgaa ccaatctgag ctttgcata atcttttttag ggttttgctt 240  
tgttgaattt gcggttgcatt cgtcgtttct agttgctggg cttagagtct agtcttttag 300  
agtttcgagt tctggtcata agttgtcacg ccgccgctgc accatcatca tcgcccctgc 360  
catctaccac caccatttat ccgccaccgc tttgaatccg tatccgtata ccaccacagc 420  
tgtcatatac caccaccact gccatctacc acca 454

<210> 10625  
<211> 429  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-019-Q1-E1-A5  
<400> 10625

gacctcccag gcaagaaacc aaactgattt ttggtcacgc ttgtcattct tcttaagcgg 60

tgctcaatga ctctctccca tagcttcatt gtatgggtca tcagcttaat tccacggtaa 120  
 ttagtacaac tctgaacatc ccccttggtc ttgaagattg gtactaatat actccgtctc 180  
 cattcttctg gcatcttggt tgcccgaata atgaggttga aaagcttggt tagccatact 240  
 atcgctatgt ccccgagacc tttccacacc tcaatgggga tacaatcagg gcccatcgcc 300  
 ttgctcctt tcactctttt taaagcctcc ttcacctcag actcctggat gcgcccgcaca 360  
 aaacgcatgc tgggtctcatc aaaggagtca ttcagttcaa tggtagaact ctcatctccc 420  
 ccattgaac 429

<210> 10626  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-019-Q1-E1-A7  
 <400> 10626

gaccgacaag acgacagaag gggagcgatg caaggtatct tggtgatact ctgaagctta 60  
 aagttgcca gggagttggt ggggcggtag ctgacaaaag ttctgttctg aagtttattc 120  
 cgtatacaat gcagtctggt aagcaaggat tccaagatct tggtgcatcc tctttgcagt 180  
 cagctcaaga tcttttacga tcggagactc ttagattaga tgtgatgacc ggcgccgctc 240  
 aagtagaggg agggatccac aggetgatgt catacgagaa taaatcattc tagcccccat 300  
 ctttgatcga cgacgggcat acaggttctc tgcgtgtggt ccatccaatg tcggcagccg 360  
 gtcacctgat attgtttgag agcagcctct cagcccgtct gtgagggccg ttcgctcccc 420  
 tatcgatcta ccacta 436

<210> 10627  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-019-Q1-E1-B1  
 <400> 10627

ggtcgacatt ctccacaatt catacatcct atgtgaacca agcccaaaag catatgcgcc 60  
 gtacataccg tgctcatgga cgcacatc cttacatgtc caaccctgc cacattgagc 120



tgatcttgtc atagaaggaa gatcctgtga agaaggaggc tgacaacgtc gtcgcaccaa 180  
 ggaaagctat ctaagctaac ggagtggctg cattcgtcca agaatcttag atgtagttct 240  
 tctcaagtat ctttgttggc agtgtttggt gcctccttga tgtttttggt accaacaatgg 300  
 agttaggatt tgttaagggt gatgctatcc ttgtgatcgc cagtggctct tatatgcgaa 360  
 aacagtttca gatatttgag cattagccca tc 392

<210> 10628  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-019-Q1-E1-B2

<400> 10628  
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 agtgccttat tgtcaaagggt gtaaaattcg tgggggatgg atataccaac tgtgaagctt 120  
 ccggtgttgg taggtgtgag atcaacaatg gaggatgctg gaaagaaact aagaatggga 180  
 agacaatatc tgctgctcg catgaagaat ctgaaggttg caaatgtcca caaggtttca 240  
 agggcgatgg tgtaaaaagc tgtgaagata ttgatgaatg caaagcgaaa tctgcctgtc 300  
 agtgcaatgg ctgcagttgc gagaatacat ggggaagcta tgaatgcagc tgtggtggta 360  
 acaacatggt atacatgaga gagcaagaca cgtgcatcag canacaagct gcctcctcag 420  
 tcggct 426

<210> 10629  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-019-Q1-E1-B3

<400> 10629  
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 gggttgaaaa ccaggatgcc attgatgctt gcatgggttg tatgctgctg atcctaagga 120  
 ggcaagagct ggcacangg aagtgcactt cttgccattc aaccaactg acaagaggac 180

tgctctgact tacatcgatg ccgagggtaa ctggcaccgt gccagcaagg gtgctcctga 240  
gcagattatt accctgtgca actgcaagga ggatgtgaag agaaagggtgc actctgtgat 300  
tgagaagtac gctgagcgtg ggcttcgttc gcttgctgtt gcaagacagg aagtaccaga 360  
gaaatccaag gattctcctg gtggaccatg gcaattcatt ggtctgttgc ncctgtntga 420  
tcccccaagg catgacagtg ctgagaccat ccgc 454

<210> 10630  
<211> 443  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-019-Q1-E1-B4

<400> 10630

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cttctttcaa tttaatattc cttttataag tgcattctat atctgggacg tgcctttttg 120  
caatcggtgt tccggccatg ttctccttta aataccgttt ctctgtgcaag tttaagcact 180  
tgtcttctgc agagcaatac cctagtccaa ccaatacttt gatctgtcat cgagtgttac 240  
actctggatg gtcgagatta tctgtggaact gcataacttc ttatggtttc ttcattgaact 300  
gttattttct accaattcca attttctctg gttctgggtt gtcgtcaacc gagaacacca 360  
aatagtgaat cgagtccgca ctctgattca ataactcgaa gtaattttctg ttgcttatga 420  
gtttaataat cttcaattc atc 443

<210> 10631  
<211> 432  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-B9

<400> 10631

gggtcgacga ctacacaaaa agattccgaa gatactcttc ggtgttctcc caagaacatc 60  
tgctcatcgc ctttgcaatt ccctaccacc ataatactct tatggataac tacgacatac 120  
acttgccatt catacaatca ttccccgttg atcttggtat tacaagatac cccgaatttc 180

tctctattgt tccgagaata cttgtaccta gtgccttgta gttccttgcc acggaaatac 240  
ccctatggac aattccttgc acttatcgag tattcgatca tccccggtg atcgtgtgtt 300  
tcacaaaagt tttcgaaata tcattcggtc ttccgaaaat cctgagcagc ctatcgctct 360  
tgagattctt gcttgcttgc attatgggta atcccataag tctagtaatc ttattggcac 420  
cctttgtcac ta 432

<210> 10632  
<211> 402  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-C1

<400> 10632

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ggcccacagc acagctgata tgactgcttt tgtgcaagat cttctaattc agatgcaaac 120  
caggttccaa actatgtcag agaacatcat tacaaggata catgaatatg ggtgcaagaa 180  
tcgatgaatt ggagctgagc atcaatgacc tcaacgctga aatgggcagc aatgggatga 240  
cccctactaa agtgaaggac gaagaatcaa agccagcata cagctctgcc tgatttaagc 300  
ataagtagca gaagcaagtc gtattagtct tgggtccatg tcaatatcat cagccattca 360  
tcactaactt agtgcattgt atgagatggt attcgactg tt 402

<210> 10633  
<211> 280  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-C2

<400> 10633

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taaatgtgtt tagccgtccg tccgtccgtc cgtccatcgg acgagatatg catgtgtact 120  
tgtacgtcgt ggatcaacgt gtagctgcac gtactttgtg tgtttatttg taccatgac 180  
gagcgagcga gaggtcctct cgctagctgc gcgcaatgta aattaattaa gcacaaggcg 240  
tgcacgaggg aatggatgga agaatcgtgt gtcattactc 280

<210> 10634  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-019-Q1-E1-C3  
  
 <400> 10634  
  
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 caggggtggct gtgcgcaagt atcagggcag aggaactggg tgtgcggggg ggctgtgtgc 120  
 aacgtttacg acacatcatc aacgtttag atatatgtgat agtgctcgcc aggaaggtgg 180  
 ctttggctgt ttcattgtatc tatttggtta ggctttgtta gatagctaca tataaaaaca 240  
 tatcaatccc acgcaccctc tcaccactag gcaaaagaat ttcaacatgt gatactagag 300  
 caccaatata gtacatgcaa ccattgacct acaaaatddd cacacataag tatgagttga 360  
 ttaatagata acacagaatc ctaccacgaa aaaccaccca caacacggca ttattaaata 420  
 aaa 423

<210> 10635  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-019-Q1-E1-C4  
  
 <400> 10635  
  
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 gtgtgaggaa agcaatggag gcccaaaca tcattacca agaactgaaa cggttcgagg 120  
 catggaggga ctactggag acggttccga ccatcaaaaa gctgaggtcg tacgccgaca 180  
 ggatcagggc atccgagctc gagaagtgtc tgcagaagat cggggaagac aatctcaaca 240  
 agaagatgag aaggtccatc gaggagctga gcacgggcat agtgaacaag ctccttcacg 300  
 gcccaactgca gcacctgaga tgcgacggca ggcacagccg caccctggac gaaacgcttg 360  
 agaacatgca cgccctcaac agaattgtca acctcgacac ggagaaggcg gtccttgag 419

<210> 10636  
 <211> 422  
 <212> DNA



<400> 10638

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ggcgacctgc acagcgagga gttcctcgcg caccggctgg cctcctcgg cgccgccgac 120  
aagtacgaca tcgccgacct caaggaggcg tgcctcgaga gcctgctgga ggacatcgac 180  
gcccggaaacg tgatcgaacg gctccagacg ggccatctgt accggctgca gaggctcaag 240  
gacagctgca tcaggttcct cgtggacttc aggaagggtg acgagatgca ggaggagtgc 300  
agcgccttcc ttcagacggc ggacagggac ctggtggctg aagtgtttca gggcgttctt 360  
gcggcgtgga gtggccgggtg agccagtggc gtagctagcc caacgtgccg ggggtggcca 420  
tcaatgc 427

<210> 10639

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-D12

<400> 10639

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agagaggggg agagagcccc cctccttctt cttccttggc ctaccccta gatgggagga 180  
gagttcccc tctggtccat ggcgtccatg gcggtggagg ggcaggagcc ccttcgagat 240  
tggatctccc tctctcttcg gttctatttc ccgttcaca gatctggcca aaaaccgttt 300  
cttaattatc cggagattcg taactccaat tgcgctgaga ttttaacatg atttttttcc 360  
agatataagt ttccttgccg ccgaagtaga tctccaacga acgtacgagg agggcacaac 420  
ccaccaccat gcgctggggc tg 442

<210> 10640

<211> 148

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-D3

<400> 10640

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aagccatgga attaccttct ttgttacaat gagctcggct tctattgcat ccacgcggcg 120  
gacagcggca ttaagcagct cttctttc 148

<210> 10641  
<211> 449  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-019-Q1-E1-D4  
<400> 10641

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tgctcgtgat gacaaaggca accctatgat cagagatttc tataacagcc aattaactgc 120  
aagcggcaat ccttatgatg acacgttact tgctaagctt gaaagtgtct acacagactc 180  
tggagaccat agctctacaa tgtttgTTTT caacgtcgag caaggtctgc ccattcttcc 240  
ggagtggctt agtttcaaca gagtgcagc cgtttgaga cagagctatg aaattggtcc 300  
tgcccgactt cttctaagtg cttctggagg tcatgtggag gggaaactttt cgcctcatga 360  
agcatttgca attggtggga caaacagtgt aagaggatat gaagaagggtg ctgttggttc 420  
tggccgctca tatgcagttg gtagtggtg 449

<210> 10642  
<211> 443  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-019-Q1-E1-D6  
<400> 10642

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tgcaaaagag atcgctgctg tactttcctg acagcgcggt cgattacctt atcttcttca 120  
tcgactgcat cttcaactct acctccacc aaccgaatag catctaccg atcagctgcg 180  
aaggctttga tgctggctct cgtcctggac tatecttctg gcttccgat gatgcagtgc 240  
ccaccggcaa ctgggtgcaa gcgtgcaacc aagtcataca attgcctgtg cacaatacgc 300  
gcgagatcaa cttactgac cctggatgga caaacgggag tggatatgcc agtggttcttc 360

gtcaggaatt ccagctggga tggaacgaga ggcggaatga cccggcatgt atccagtgcg 420  
agggatccaa tcccaaggga cag 443

<210> 10643  
<211> 419  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-D7

<400> 10643

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caaataaaac gaccggttcg atctaacta actaaaccga gaataaaccg taactaaacc 120  
gatctactaa aaaacctaac tcttggttag atctaactcg gagcggttga tatcgatcta 180  
gcggatgaag gggaaggtgg cttacagata cgttggcgac gtacggaggc gacggagcgg 240  
cggtcagcgt cgaacagggc ggcgattccg gtggtcgcgg gcgtcgggtgg agtggctgaa 300  
cggatgcagt aaagcgaggg cgtcgcgggg gtgggtggagt tcgcgcttgg agatgacgga 360  
aacgagcagg gcgatagtga cagcggttgg gcgctctgca gctccgggtgg tcggcgtag 419

<210> 10644  
<211> 427  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-E10

<400> 10644

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ggagcgccct cttcttgaca gcttgatgat cggaggagta aatacatagc acaacataca 120  
gagcgtctca aagataattt tgatagcaag cagttaacct tcttcactg catgtcggaa 180  
tggtacacaa accaagcaac gcccagcgag ctacagacgc aggattcttc gaggtcgatg 240  
atgcaacggg aggatggccc catgcgggtg tgactaatta ggcgattgta aacaaaaatg 300  
tttatagact cactgatgtc cgtagccacg taaaccacga gaaattgaaa ttctttctga 360  
gtaaattcct ttgctgtggt tgaaatgacg aggaagatat agcaggtcgg aatgatcatg 420  
tccgttg 427



<210> 10645  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-019-Q1-E1-E11

<400> 10645  
  
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 acgaattcag ggtgttgccg aaaggtgagt gctgaaagac atccgtggcg gtgaactcca 180  
 tgaccggagc ccaatcgggc ttaaccgaga gaggtgcggg atttacggag tccggcacct 240  
 cggagtcacg ggccttgcca gggactangc tggatccgg ctctatcgcc gtagagattg 300  
 cagtttccgg ggtggcgtct aaccatccgt cnccgattgg catagtgggc tccgagctaa 360  
 tggtcggagc ggacacctga gcgacgtctt gggcgttgct cgatgacaga gctaaatcgt 420  
 gctcaacatg acagtgcggc gc 442

<210> 10646  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-019-Q1-E1-E2

<400> 10646  
  
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 cctcgcagga gcgccgagtc actcgggtgac caaaagatct actctcgca ggttcggttc 120  
 agtcttcgca gctcgagaca tggcgggaaga gaatgccccca attgcagttg acgctcaggt 180  
 tgcgggacct atcacagttc ttggagagcc catcgtcctg atgactgctc tgcagcttgt 240  
 gatgaacagg tcatgcgctc atgaccgtct tgtcaaggga cttcgggaaa ctgcgagcgc 300  
 gattgataag catgctgctc acatatgtgt gcctgctgag gactgagaac agcctgaata 360  
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<210> 10647  
 <211> 425

<212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-019-Q1-E1-E4  
 <400> 10647

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tgcaaaaaaa gaaagcatgt gaaaaaggta ttaagaaatg aacaaaaaat atttgcaagg 180
gtagaaatct aaaaaagttg aagagtangt ggaaagctag tagttgccat gtangtggaa 240
taagagttgc catgtgtcat agtttagcagt tgccatgcaa atccagcaag agttaccttg 300
ctagccaact tgaagaatga taaaaatgtc tgatctgcta ggaatgcaat ttcaaaacta 360
agtatgtgat gagcacacaa gccaatgcaa agttggaagt tgccataagg gtacaaaaag 420
agatg 425
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<210> 10648  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-019-Q1-E1-E5  
 <400> 10648

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gggaagcctg tcaatgctga agatgggcaa gtagcatgat gtgtagcgag ctggtgggga 180
agtgcctgt ttttctctgg gccggtgccg tggaactgga atcaatgtat cgaatttcgt 240
cttgtttctt tctgaatttg ggccagaagc ctttgttgta aggatcctcc tgagtagtat 300
gctttcattt ttcttttctt gaacataacc gccaaatttg ccgaaaaagg gttttccctc 360
actttgtata caaagcaatc aaccgaacat ccaacgatag gtgctggggc ggaagcagca 420
cagtcacgct cgat 434
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<210> 10649  
 <211> 411  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-019-Q1-E1-E9

<400>       10649

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tctgcggcgg cgctctctc gtcgacaaga gcagcgctct cgccgggctaa gagagcatct   180

acgtgtaaca caaggctggg tctctgcttg catgcacgtc tctgtaatct acgtatctac   240

ctcctgtgaa tgtatgtcat caacgatgca aagtagttga ttcgaagaga tggtttatgt   300

atgtacgtaa cgcagttacc agatactcct acgtcctact ttggaaactg tatcagggta   360

tattcttggg gcaaactgtt gcgcgtcaac aacatctgaa gacggccgct c           411

<210>       10650

<211>       461

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-019-Q1-E1-F1

<400>       10650

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ttacagtttt tcgtagttga gatcgagttt gttcttcata cctatagtcc acgaaaaagc   180

cataaaaaaa atttagagtt agttcatcct atccgaacca atctgagcct ttgcatagtc   240

ttttctgtgt ttgcattggt gaatttgagg ttgcatcgtc gtgtcaagtt gctgggtctta   300

acgtctactc cgtttagagtt tcgagttctg ttcacagggt gtcacgtcgc cgctgccgta   360

tatcaccacc gcatcagcat catcgctgct gccatatacc agcaccgcac cgacttcac   420

gccgctgcca tataccagca ccacatattc accggcaatc c                   461

<210>       10651

<211>       439

<212>       DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB31-019-Q1-E1-F11

<400> 10651

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ggtaacctgt aacgccaat atgcgaccat actccatacg tgtcgaggca cgacttgggg 180  
catagccgca tattggtatg gtcacgagag tgtttgtatc tttgcgcac tcatgtactg 240  
aatatataga atacgagctt tggcttaca tgcgccacaat gtcacacaat atcatcaagt 300  
tatacaatca ttcaagatga acacagtgtc cagctacaga cgaaatcaaa tgaatagaag 360  
gcaaccaccc aagctaagtc ncgatcgacc ctactgggca acactactga tcatccggaa 420  
aggaaacata gtaacaacc 439

<210> 10652

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-F3

<400> 10652

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tcccctcctg ttcccagaca gggagttcta gatcgacctg gttacctgct agtgcatacc 180  
tgctagtgca tcatctgatt ggagccacct acgtattgta tcgtatcgaa cgtgttttgg 240  
ctgtgatggc taagctgact atctgtattc tggctctgtaa tattgtgtaa gcaaaccat 300  
ggcaaggagc cgggtgttgt gtgacgttgt cgagtctggc ctgcataatg tgtgacctaa 360  
ggcattgttg ccagtatttc aacagtgaag atacggtctt tggttgcaaa aaaaatgaaa 420  
caacgaaaaa aaaaaagcg gccgctct 448

<210> 10653

<211> 420

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-019-Q1-E1-F4

<400> 10653

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caacccttct taaggcaaac ttgtttaact tatgtctgta ctcaaataatt gttgcttccg 180  
ctgactcgtc tatgatcgag cacttgtatt cgagccctcg aggccctgg cttgtattat 240  
gatgcttgta tgacttattt atgttttaga gttgtgttgt gatatcttcc catgagtcnc 300  
tgatcttgat cgtacacgtt tgcgtgcatg attagtgtat gattgaatcg ggggcgtcac 360  
aggtatatta tattagagtc ctgaagatat gcaagaagca aagaaatcta tgaaggaaaa 420

<210> 10654

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-F6

<400> 10654

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ctttacaacc tgaaaataatt gacagaagct aagatttgat cctgtgctca catagatgat 120  
tggattgggc agaaatttgg aggagtgtgc aaaatttcat ctcaatttga tactcctagc 180  
tagtacttcc ttcacaaagc cttctgtctg acaaaaactt tgaaaatcac cgagggaagt 240  
tggctaggca aatgaggttg aattttggca tgaggttaatt atttggacat aaaaatgccc 300  
aaaaagtttg ggagcaacta gagaaagata aatgacactt ccttcacaaa gtgccgttca 360  
ggacataata gaaaaaggag tattggggaa ttatttttga actggccaag gaaatgtttg 420  
ggca 424

<210> 10655

<211> 436

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-F8

<400> 10655

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tgatcgagag gttcgagaag gaagccgctg aaatgaacaa gaggtctttc aagtacgcct 120  
 gggtgcttga caagctcaag gccgagcgtg agaggggtat caccatcgat attgccctct 180  
 ggaagttcga gaccaccaag tactactgca ccgtcattga tgcccctggg caccgtgact 240  
 tcatcaagaa catgatcacc ggtacctccc aggctgactg tgctgttctc atcatcgact 300  
 ccaccactgg tggttttgag gctgggtatct ccaaggatgg ccagacacgt gagcacgctc 360  
 tccttgcttt cactcttgga gcgaagcaga tgatctgctg ctgcaacaag atggacgcca 420  
 ccactcccaa gtactc 436

<210> 10656  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-F9

<400> 10656

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 ctccaccggc tactattcaa ccagtcctct ccacgggggtc ctgttcaacc acctccacg 180  
 ggctactgtt caaccagccc tccacggggg cctattcatc cagccctcca cagggtcctg 240  
 ttcattccacc cccaaccggc tcgatcaggg tcctgttcat ccagcggcaa cggcctctac 300  
 taccacgggg tcctgttcat ccaaccccca ctgggaactg ttcattccacc cccaacaac 360  
 gctcattgtt catcaagagg cagcagggtc gatcatcttc agttagcacc agtaacgaag 420  
 gaattgctcg accggg 436

<210> 10657  
 <211> 102  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-G11

<400> 10657

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 tatcagatgt tcagattgcg cggtgagatt ttacagtttt tc 102

<210> 10658  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-019-Q1-E1-G12  
  
 <400> 10658

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tttacaaatg tctacgtcaa gggtttcggc gttgagtcac ttggcgcaga tagaaaggag  120
ttgagagcta cactcccata ggtcaccaac ctgaagatga agacgagtac tcttctaaca  180
cgatgatata tcgaggagga ataagcattg gtgaacaaac ccttgggtgt tgctggcagt  240
atattgttgca aaacgaacct gtatagagat gtgatgtcag gggaattcgt tccttatttg  300
ttatgttttc cttttttttt ctcttctgc aattcagttt aactgctgct agctggcgat  360
ttggcctgca taatcgcttc tgttcgcana atcatgaggt ggaaattaat gtttgctgt   420
gtcgt                                           425
  
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<210> 10659  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-019-Q1-E1-G3  
  
 <400> 10659

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acagtgggag gggcgggtgat atgtaccgag tgcacgaccc gttggcttgt atcactcacg  120
tgccgcttgc gtcattggcc ccgcctagcg cgacaggagg gagtgcacgc atgaacgtat  180
tgttaaaatt cacaacattt tttagaataa tagttggttt tgtttcaaata ttaacaatgt  240
tcataaattc gattttttaca gattgaataa catatctgta cgtttaacaa gaatgtttgc  300
aaattcaaca aagtccatgt gtttacgaat tcaaaaaatg ttggcgtgtc caaaaaatgg  360
ccatgaattc atacaatgat catgtagtca aaaaatcttc ataaattgga aactcttcac  420
ggattctaaa atgtttgtga aggccaatta attt                                           454
  
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<210> 10660  
 <211> 400  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-019-Q1-E1-G4  
  
 <400> 10660  
  
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 cgacaaacct agtttagcgc cacttggcta attcaaggct tttgaaatat ctgaatatcc 120  
 tcctaggcta agaccaatac tgcgagtatc tatctgtttt cagtatcatg tattttatgt 180  
 ttctcaacca tctcagtttc atgtaataga tagtggacac tttaaaaatg ttcataaaat 240  
 gcaattttta aaaattgaac acaatatcta ttcgttacac acatatgtat gcatattcaa 300  
 cagaatacca tgtatatatc gctgccccaa aggttcgacg tttacttacg cttgcaagca 360  
 acttcaaacc tcttcaagtg tttcaccaaa tttcaattaa 400

<210> 10661  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-019-Q1-E1-G5  
  
 <400> 10661  
  
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 ctagagcctt ttcacaccgg tttttaaaaa aatcattttg ggttttcttc tctttttctc 120  
 tttttcattt ttatttatth tcattttgcy gtcattctta atattcgtga actttttttg 180  
 aatttggtta gattattaaa attttaaaata ttttcgaagt tctgaacatt ttttgaattc 240  
 gtgatttttt tatattgtga tttttctaaa aactgcgaac aatttttgag tttgtgaatg 300  
 ttttacagaa ctgctaaaat ttcaatttta acatttggtc aaataatgat caattcttaa 360  
 attcttgaaa ctttttgaga ttgtgaccat tttttgaaat atgacaacat tttatgattt 420  
 tttttaaatt caagaacatt ttttcgaatg 450

<210> 10662  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB31-019-Q1-E1-G6

<400> 10662

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catctcaaga aactgttcat tgcaaactg gcaatgaact ggggtacatt ctggattctc 180  
accctacttg ctgccgcacc tgccttgagg tcgctccatg ttcattttga ctcagagaag 240  
gcgagtgctt cagtattact agatgtgcaa gcggaacacc atcagcacca ctatcacctg 300  
aaagaactca tggtcgttgg cttcaacggg gtggcatggc agacgggctt tgtgaagcgg 360  
atcatgcagg catgccgat cctggagcat gtccacctgc tggacgggca cgtcgtggag 420  
gatgaagaac ggcaactcg 439

<210> 10663

<211> 405

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-G9

<400> 10663

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ccagagaata gatcgcccga gggctcatcg tatcgacaaa tgcactctcc tcggatgtag 180  
ccagccccct gcggaggcaa cctaagttaa aacttcacat ttggaacctg agttgcttgt 240  
aagaaaagat gggggaaaac ccatctgtaa ggaattaaac cgggtttgcg cgctgaactt 300  
ccggagaatt ctgcgaagga gaaacaggaa ataaccgga gggaaaacgt tttggtttgg 360  
tttaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaagcggcc gctct 405

<210> 10664

<211> 373

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-H10

<400> 10664

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 gtcattgtcg gccgagaata tcaaatgaaa ctttgtaagt tgtactaggc tacttagact 180  
 ttgaactaat gtgtgatggg cgtggattgt acgtcttgaa ctaatctgtg aaggttacct 240  
 tggaaggtta acttttgttt cgcttgattc ctgaaaaatt tggaaaattt ccatcatatt 300  
 ttgttcaaaa actcaaattt tggctctcat attccatctg tgatatctat ttatatataa 360  
 aaagtaaatg atg 373

<210> 10665  
 <211> 431  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-H11

<400> 10665

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 ggaagcaaca gaggaagag tctgaaaggc caacagataa gcagttatac cagggttcttg 120  
 agcagaagga ggagaaaatc gcacctggaa ccctctatgg gtcaagccat acgtatgtgg 180  
 ttggggcaca ggataaggct ggggttaaaa gggttgatct tctcaagaat caaaagtccg 240  
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 ccaagtatga agaagcccgg gaggaggaga agctccggaa ccagaaggaa gacttcagcg 360  
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 ccaaaaagaa a 431

<210> 10666  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-H12

<400> 10666

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gatcgaagaa gatccaagta gaacacttta agtggatcca tatcaataga tttttagcaa 180  
gcaaagatga aagcacatag aaggcatatg gagacacgag caaacaaaaa gacaagcaaa 240  
agagaggaga ttgggaaaga gagggcaa at aaaacggcaa aggtgaagtg ggggagagga 300  
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tggtatgtct tgacttgtgc gtagacc 387

<210> 10667  
<211> 417  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-H2

<400> 10667

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acttcagatc tgaacctacg gatatatgtg tggacctgaa aatgaaccgc cagatgctta 120  
aaccatatta tgaccagctg ggatgcaagt cgggtgtcaac aggtgctttt aaaccatttt 180  
ttatgacgct tccagcacc ctcaagttcc cacaacaagt cacaaggaga aggcggcgaa 240  
aataaccatc tcagtattgg tttccatttg atatggttgt gataggaaag gtatgcattg 300  
ccaccgtcga aagaacctat gtgccctcag ctcaagttca ccaatgtagt ggagaaaatg 360  
atgacgggtg ttgttctgtt tttgttttct attgtcgctt gggaattgct acaagag 417

<210> 10668  
<211> 438  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-H8

<400> 10668

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agaggatgag gattgcgaat gacttgtgca tcttccatga tcagaaccgg atctgtttat 180  
ttttgcgtga tggtcgtggt ctcaacttga tgggtgcac gtccatggtc agaactggat 240  
ctgtttattt ttgcatgatg gtcgtggtcc gacttgtatg gttggttggg agtctttgtt 300

tgcattggta catggttgaa tattgtacaa tggactaatt gtagtgtata tgtgttgtgt 360  
 catactgata gttttttgttt gcatggttga atattgtcca aatggactag ttacagtcta 420  
 tatgcttata taaatgat 438

<210> 10669  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-019-Q1-E1-H9  
 <400> 10669

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 tgaaggcggt gcgtgagcgc ctggactcgt gggtcggcaa agtgcatacc aactgttgt 120  
 ccatcgaggc agagaccccc gatctcgtgg cggcttagct tgttggccaa aaatgattct 180  
 gaataggctt tggttgtcag caaggcggcg gtgtaaaacg agagaccatc tggctgtgct 240  
 gcgcgtgcta gctgctcttt tcttgataac gaaaacttgt tgccttgggt gtcctattgg 300  
 tctggacttg taacttcctt ctatcatcac ggatcgaaac agagaaatca taccggcaga 360  
 gggtgtcact agttttttcc tgttgaactt tataatctgt aatccagcgg tttgtc 416

<210> 10670  
 <211> 356  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-020-Q1-E1-A11  
 <400> 10670

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 cctactcgag cttcccagac gagacttttg ctttggttcc tgcgaaatac tggcagtatt 180  
 gcattttgcg tttcaaactg gtcaaggggg aagtggggta gggctttttt ttcttcaaaa 240  
 tctgagtatt tgacttgtaa cctaactatg tggatcgagg gaactgcaga ccattgtttg 300  
 tagacggttg cttccacgat gatgaattca tccatttatt acaagtctgt cgaaaa 356

<210> 10671  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-A5

<400> 10671

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tggagcagga gacgttgggg acgagcatgg acgaggtgtg cgtcatgggt gacgctgccg   180
gatcgacaag cgaggtaacc acatgagggt caccagcgct tgcaacaccc aatagtgcgc   240
tcatctcctc tgccttagca cataatctct tgtgatacca caacaactgc tcgttggcag   300
gcatggcatc ccaactccgga ggtaagtcgg caggcatgtc gtcgtcgccg gtgaaacgga   360
tgaatcgggtg tgggagaaaa aatggggaaa attggatggt gaaaagggtg tgggctggct   420
ctg                                                                    423
  
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<210> 10672  
 <211> 374  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-A7

<400> 10672

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gagacctatg cccggcaggc gtcctggatg ggttctcagg tcttagatgt tacgtttggc   180
tgcgatgtct gtttggattt atgcccaggc tatctgcgcc cttcatcaa ctggataagt   240
gtaccaacag tttgttactt agacggcagc tttagtctta ctgtggtatt actttgtaag   300
gtcttggttac aataattaat aaattggcct tatccatcgt ccaaatacaa aggccttttg   360
tcttccccct tttc                                                                    374
  
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<210> 10673  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum

<223> .Clone ID: LIB31-020-Q1-E1-A9

<400> 10673

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tgaccatagt ttgaccagat ttaacaaaaa taaaaaaaaa attaaaattt gagcataact 180  
tttttccttt tagaacttga gaattctaaa aatttgcgaa aagggaatgt catgggaatg 240  
gagatctgcc gcgccggtat tagactagtc gattagttga agtatgttca acattatacc 300  
tccagagtcg gacaagctcc gcttttattt gaagtatgta ggaaatgtaa ttccgtccag 360  
ttagttcaaa cagtgggtcca aatgtatgtg ggttctcttg gatagacagc tcccgcac 420  
gtatccct 428

<210> 10674

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-B11

<400> 10674

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tcgagtctgt tttcatacc tacagtcac gaaaaagcca cacaaaaaat tagggtagt 180  
tcatcatatc cgaaccaatc tgagccgttg cataatcttt ttagggtttt gcattgttga 240  
gtttgcagtt gcacgctcgt gtctagttgc tggctcttagt gtctagtcct ttagagtttc 300  
gagttctggt cacaagtagt cagccgccc ccgtatcatc atcatcaccc ctgccatata 360  
ccaccatcat catcacgct ggcatatgac accatcgta tcaccattgc catatgacac 420  
catcatcatc attgctgcca aataccaca 449

<210> 10675

<211> 405

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-B12

<400> 10675

gtccacacag cttgttgcca gataatcttc tgtgtgaaag gcatcaagct tccatgcat 60  
ggatggcttt tgcaaacccg acatgcagct atgtggttca tgccaacaac aaatatgcac 120  
aacttgattc gtgctgatat ctagactgag ccatgtattt tgctgctgta gcacgacct 180  
cttttgttgg gtattatgta ctgttgtag tttgaagcac tcactctggtt tgaaggatag 240  
tagatacctt cctaggatca agtgcacct cactcacctg cgtaggatgt actgataatg 300  
atgatggaga tgttgtgcag aagcctaata tatatatata tcagttaggc ttcaagtgcg 360  
tacttgtag ttaaactat gtatacattg tgacactaaa tacga 405

<210> 10676

<211> 458

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-B9

<400> 10676

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tcctgatgct attctttctt attttctgaa ggagaggctg gcatttgaca atacggttct 120  
gtgtgtgaat tgactactgg tactgcagcc tgaaattttt cttgtggagc ggaccgaagt 180  
aatccatcaa gctagctgca ttattttggc aggacatgtc cgaagaagac atatatgcat 240  
gtgggtacat ggatatcggc gagagggact tgggcgaata tgggtcatcg cccaaaagga 300  
agaaacttgc agataacaat ccaaagaagg cattggattt cggcagtagt gacgagcctc 360  
ttcagttagc ttttggtttt tctacaattt caagctttag agctgaacta ttgtcccaag 420  
gtagtattta cattattttc gaaccaacaa tcacttca 458

<210> 10677

<211> 436

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-020-Q1-E1-C10

<400> 10677

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gctagctagc tacttcgacg tactcacctc atcatggcgt caaacacatg cctgaagtcg 120  
aaccagcttc ctgttagaac aacaaattgt actattcctt tgtactccca cctgccgtcc 180  
ttttggcttt cggatgatcg gtaccaggta ttgaaaatat actattacgg aaactaaatt 240  
tgatggggccg tgtcctctgt tgtccttctg tggacctccc attgattaat ctccttctaa 300  
tctgatcatt ggattcttga agtggcaatg tcaagctctc atcatgtgag tactcagtcg 360  
gtgattcnct ctactagtgg tattttatcn caaagaataa cacaacgtac tgtgcatcag 420  
gagcgtctac agatat 436

<210> 10678  
<211> 466  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-020-Q1-E1-C12  
<400> 10678

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gcagggatag caccgggctt tacctgggct cttctcttgt tgtgtatgca ggtattattg 120  
acccgactct tctcgaagca tttgcgtgta gagaagctct tgcacttgca gaggacctga 180  
gaattcagat gatgcacgtt gcttcagatt gtgaggaagt ggtgaaggac attaagcaag 240  
ggtcgggagg atatcatggt gccatcatcc aggaaataat tgctaggaaa aatgatatga 300  
tttcatgtac tttcactcat gaacgtagag tttttaattt cgaagcacat aatctcgtca 360  
agtttggttg taatttacgt gtaagtcgtc atgtatggtt ggggtctcct catgatcaaa 420  
acattgtacc tttaaattatt gagcagttaa agacgtgaga attccc 466

<210> 10679  
<211> 392  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-020-Q1-E1-D11  
<400> 10679

gtccaccacc ctattatcag tagtattccc ccatgtatat agtagtagtc taagtatttt 60



gtaacggtag ctagatcaat tgtatgccct tgtttgaatt gagtgggtgtg atatgaatgt 120  
gtttgtccca tgtgcatatg ggtagtgatt tttttctcct tagacccacac tctattctaa 180  
tctgtccctt ctaaaacctt tcagatgcct ccgacacgtc accccggatt tgtcttccca 240  
ccgaagctca cccagttcat ccagcagcat aatgccttga tgcagctgct agtcacacaac 300  
caacgcaaca acagtaacaa ccacaacctt cacaatccac cgccatcact tcccgtagat 360  
cacttcaccc gttttctgag ggtaaatccg cc 392

<210> 10680  
<211> 418  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-020-Q1-E1-D2

<400> 10680  
ggtgggacgt cccctaccga aaaccatcat gcttggtgtg agaagctccg gtttctgaga 60  
agcatatacc caaacctgcc ccaaattgga caaaatttgt accacggcat gttgatgccg 120  
ctacgtgata gcatgccaaag tttcatgaat ttcagacgag ttttggtttt actagcattt 180  
aaaaaccagg cacctcaatg ttttgccggc aatcaacggt gccctgggtg ttgaaattcg 240  
ttcccatctt ttgcatggga cctaagcatg cacccaagga cgctgatttg atttttcaac 300  
caatttatat gcaactggagc atgcgcatgt agttcaaatt tgaattatgc acataaatgc 360  
attgaaaact cagttaatgc ataaaaatgt cccaaacgaa cccgaaaaat cataaaaa 418

<210> 10681  
<211> 462  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-020-Q1-E1-D5

<400> 10681  
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tatttataga gcgaggccct gatcctcttc ccaaattatt agcgggaagg gcaccaacaa 120  
ttggccattt tgaaggggaa catctagtac acttatcctg actaaagttg gtcctcgcct 180  
gccaaaggct ctgacgatga cgccttcttg ggctccacga tgacctccat cctgccgttc 240

tgctgggtctt ggtcttggtg gaccgaaatg gtaacctttg cctgatgcct tggcctgtgc 300  
 ttgccccatt tgcaccgaag gggaaacaag gacactgccc aggccggcac ccacctggct 360  
 tgggtcgtca tggcttgcac cacgggcacc tcatgatgta ccccgcttg atctctccgc 420  
 ctctctcgca gctagcctga cgaggctgca cctgaggaag ct 462

<210> 10682  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-020-Q1-E1-D7  
 <400> 10682

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 gggaggatca tcttgcggta cgaccaacgg aggtggaccc caatcgacag cgagactggc 120  
 ataggatgga gcagcagcgt gatcttgggg atttgttcag catgctgcgt tcggggatca 180  
 gtggcagaga agatgggggt ggagtcagt aaggtgacga gggcgtcagt gagagatcct 240  
 tgcacgccac gtccataacg atggtcttca ttgtgcggtc aggcaggctc atcctacact 300  
 acacagacgg ggaaatccca ggtcgtcgat caagaacaat tcttctagtt ggggagcctc 360  
 gtggtgaagc ctcccgagga ggaggatcaa gcggcaatgg tgatgctgag gccac 415

<210> 10683  
 <211> 363  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-020-Q1-E1-E11  
 <400> 10683

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 tgtgcaataa cacagattgc acaccattaa ctcatggctt tggatgtaac cgattgtttg 120  
 gcaaacaagg caaggaggac ccttctgtga aaggaatata aggttacaaa ctgggttggt 180  
 gtgaagtctt tccgtgagcc ctggtactgg gaaaattggg gaatgatatg atatgttgta 240  
 atgtgggtgg cgaaattttt ggataaacat gttgtaatga atgtcaccgt cacaatgggc 300  
 cgtgttacca aactaatata tgatcctgaa tctggttaacc agcattttcc accaaaagaa 360

<210> 10684  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-020-Q1-E1-E12  
  
 <400> 10684

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 aggatgaggg tggctgcaaa cgagaaggcg gaggctgaga agattgtcca gatcaagcgt 120  
 gccgaggggtg aagcagaggc caagtacctg tctggcctcg gtatcgcccg ccagcgccag 180  
 gccattgtgg atggcctgag ggacagcgtc ctgggcttct cagtcaatgt gcctggcacc 240  
 actgcaaagg acgtgatgga catggtgctg atcaccagct actttgatac tatgaaagag 300  
 attggcgcgt cctccaagtc ctctgcggtg ttcacccccc atggccctgg tgcggtgcgc 360  
 gacatcgcca cgcagatccg tgacggtcct cttcaaggcc agtctgcctc tgacaac 417

<210> 10685  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-020-Q1-E1-E4  
  
 <400> 10685

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 tcctttgaga ggaaagatat ggaaagagag ttgttgcaa agctctttgt cgggctttac 120  
 aacggtggat ataatttatt gagcaagcct cagctcattg aggggctttc atctgttctt 180  
 gcttcattgg aagatgctct aagtgattct ccaagagcgg cagagtatct tggacgactt 240  
 cttgcaaggt ttgtggtgga gaagatactg gttttgtaag acgtaggtaa attgattgaa 300  
 gaaggcggag aggagcctgg acaccttggtg caggaaggca ttgcagctga tgtccttggg 360  
 gcagtcttgg agtggatcaa aacagaaaag ggggattc 398

<210> 10686  
 <211> 419  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-020-Q1-E1-E9

<400>       10686

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aggtcgggga ccaaggagtt catggaggcc ctgcgcgcgg gcgcgcgacgt gtccatgatt  120
gggcagtttg gtgtcggttt ctactccgcc tacctcgtcg ccgagaggggt tgcgtcacc   180
accaagcaca acgacgacga gcagtacgtg tgggagtccc aggccggtgg ctcccttcacc  240
gtcactcgtg atacgtctgg ggagcagctc ggcacgggta ccaagatggg cctctacctc   300
aaggacgacc agatggaata ccttgaggag cgccgcatca aggatctagt taagaagcac   360
tccgagttta tcagctaccc caactccctg tggactgaga agaacactga gaaagaaat   419
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<210>       10687

<211>       409

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-020-Q1-E1-F10

<400>       10687

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ccttttgaga gagccataca tgatttggaa tttgatagaa tactctatgt gcttcactta  120
tatcttttga gctttatagt tttgctctag tgcttcactt atatctttta gagcacgggtg  180
gtgtatttgt tttatagaaa ctgttggtct ctcagtcttc acttagatta ttttgagagt   240
cttaacaaca tggtaatattg cttaaaatcc taatatgctt tgtatggaag attaataata  300
aaactttcat atgagtgtgt tgaatactaa gaaaagtttg atgcttgatg attgttttga   360
gatatggacg taataatatc aaagtcatgc cagttgagta gttgtgaaa               409
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<210>       10688

<211>       477

<212>       DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB31-020-Q1-E1-F11

<400>       10688

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gcagtttttg acatcggttt ttctgggggt gtgttcgcgg ccacaacatt cgccattgga 120  
gggcttgaca tgaaaatcat ggttattgga ttgatatgtg cttgccttag cgtgttcatg 180  
tacgggtccc cactcactgc cgtgagaacg gtgatcgctt caaggagcgt ggagtacatg 240  
cccttcttcc tctcattctt cctcttctc aatggaggag tctggggccac gtatgccata 300  
ctcgacaaag atgtcttctt tgggggtcct aatggaatag gctgcttctt gggcggcatc 360  
cagctggtta tctatgcaat atacaggaac agtaagggtc gctctcagtc tcatgacagt 420  
gacgaagcag catatgatgc ttcggcttct cttctgtcct ctgatgccgg cagacat 477

<210> 10689

<211> 456

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-F8

<400> 10689

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tttttcgtag tttagatcga gtctgttctt catacctaca gtccacgaga aagccacaca 180  
aaaaaaaaatt agggttagtt catcatatcc gaaccaatct gagcctttgc ataattcttt 240  
tagggttttg ctttgttgaa tttgcggttg catcgtcggt ctagttgttg gtcttagagt 300  
ctagtctttt agagtttcga gttctggtca taagttgtca cgccgccgcc acaccatcat 360  
catcgcccct gccatctacc accaccgctc cgaattcgta tccatatacc accaccaatc 420  
cgtgcccata taccaccacc gatccatct catata 456

<210> 10690

<211> 301

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-F9

<400> 10690

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atgagatttc cctatgtcaa tcagggttac actctagatc ggtaagccaa gtacagttta 120  
agaacaactg gagccagaat cctaaaaatg ggtcaactgc agagaagatg atgcaataat 180  
taatgggcct taacaagcca agggccaatc cagggaagaa caaaatgcgc caacaagttc 240  
tggtggaacc aaaatataag ttatgttgta tcctaattcc ctttttttgc cggggaaaac 300  
a 301

<210> 10691  
<211> 458  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-G10

<400> 10691

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ttactttccc aagtaagtcc tcccctcaac cggcccgtaa catataaatt cttagatttc 180  
gatcgttttt ctttttagcat tcagtgtttt ctacagtgc acacattgca cgctcatcct 240  
cctaagcccc aaatattcca tggccacata ttctgaccgc gaccgtcagt ccaacgtaga 300  
ctacacaaat gtcaagaaag ttcttgatga tgttctcccc ggctacgcca aatctggagg 360  
caccttcacc aggcctaatc gtaagtacgg gaagcaagtg ttctcccaca atacgacgtt 420  
ctgctgcgtc aagcagccgc ctgacggtaa gaagggtg 458

<210> 10692  
<211> 443  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-G11

<400> 10692

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gcatggaggg cttccccaca aacctgcagt gctcatctt caaaggcaag cagctcgagg 120  
acgacgagcg cacgttgggc gagcacaata tacacaagga ttccacgatc cttctcgtcc 180  
tccaccacg cccagaggt gggatgatca tcttcgtgaa gatgttgata gggaagaccc 240

tcactttcga ggttgagagc tcagacactg tcgagagtgt caaggtgaag atgtaccaga 300  
 aggaaggtat tcctccgata caaacacgcc tcactctcgc cggcaaggag ctggacgaca 360  
 agcgcaccct ggcggagtac aagattcaga aggaggatac ccttcatcat ctgctctgcc 420  
 tttgtggttg ttgatcgaga tgc 443

<210> 10693  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-020-Q1-E1-G4  
 <400> 10693

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 ttagacctca aagatgattt cagtgagcaa gaggagcagc tgcggcagtt tgacatggac 120  
 atgaagtttg gcccatgcat cgggtgtcaac cggcttcagc gctgggagcg tgcttccgcc 180  
 atgggcctcc agccaccgcc ccaccttcat gatctcctag cgcgtgcctc ctccggaac 240  
 aaccgcaaca acggcgcccc ctcccctgag tgccctctggg agggtaagat ctagaatcaa 300  
 gtttcttccg ccaagagtgt tccatggcaa cctagcaagg cttgcctact gtttgggacc 360  
 atgtagttta gtctgaaact tttaccgcgc gaaactctcg ctgttgact gaac 415

<210> 10694  
 <211> 458  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-020-Q1-E1-G5  
 <400> 10694

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 gaaggtggac cccctcgaga gctcggttgt ggcattacca ccattaccac cctcgagcc 120  
 cagccagatg ctcgactccg agaaggggga ttccgacgtt gcaatgtctt gctcgtccgt 180  
 gtccattggg caagtgggtc ctgtaggtga tatggttgtc gcaccagag cattggctcg 240  
 tgtgcctggg gctctcatag caaaagagat ttgtcatttc ctcgctacct tggacgctgc 300  
 taacctgga tccggcaaga cgattgggtg tctccttaag gagaaggcca tcagggataa 360

gaaaagtggg ggtgctagct ctcgtcctgt cgtctttaag gagaaatcaa acaagtgcag 420  
aaccaagaag agtggcgcta tagaaaaggc gtccgtga 458

<210> 10695  
<211> 416  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-020-Q1-E1-G7  
<400> 10695

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aaagaaaagg gctacaatta ctagaatacg tctaaaaaaa agcatacctc atcactgcag 120  
tttgggtggga catgcacatg catgaacttc ccaagacctt gtaaaaccgc caaacaagca 180  
aaaatcgacg ccaaactggg gtttcaactg gtgaattgtt gagaatgaaa atgagtaagg 240  
aaaagtataa atagacaaat gcatttccag taagtacatg aactgattag aaggaaaaga 300  
aaaacaaagt taccggtagt ttcccataag aaatttcgtc tgcttggaca tccatactaa 360  
gcaattcaga tatcttctct tttttccaaa cattgatagc aaatgcacca tcgggc 416

<210> 10696  
<211> 384  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-020-Q1-E1-H10  
<400> 10696

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agcaatggag gcccaaaca tcatcaccga agagctgaaa cggttcgagg cttggaggga 120  
ctcactggag acggttccga ccatcaaaaa gctgaggtcg tacgccgaca ggatcagggc 180  
atctgagctc gagaagtgcc tgcagaagat cggggaagac aatctcaaca agaagatgaa 240  
aaggtccatc gaggagctga gcacgggtat agtgaacaag ctccttcacg gccactgca 300  
gcacctgaga tgcgacggca gcgacagccg caccctggac gaaacgctgg agaacatgca 360  
cgccctcaac agaattgtca acct 384



<210> 10697  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-H4

<400> 10697

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 cacaccaggt gagaaaaaat gtttaaaatt cttataacct agatgaatta agtcgatatt 180  
 gaattcttgg tttggaagaa gaatgctggc ccttaattac ctacctgatt atctttccca 240  
 tacggatgga gatgacatct ttcctgtaat cgtgctggaa tgcccagtag tggaaaaatg 300  
 cccagagtaa ctccgcgatg gtctccttgt tttcagcccc aaaatcacga agctgatgaa 360  
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<210> 10698  
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 <213> Triticum aestivum

<223> unsure at all n locations  
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<400> 10698

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 ggcacagag gccataatca agcagatccc tcgtctcctt ggccctgggc ttaacaaggc 180  
 aggcaagttt cccactctgg ttagtcacca ggaatctctt gaagccaagg tcaacgagac 240  
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<210> 10699  
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<213>       Triticum aestivum

<223>       Clone ID: LIB31-021-Q1-E2-A12

<400>       10699

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tatggactcg gggctagaga gagcttggtg gagggcgtga atgctgtcac tagtatcctt   180  
ggcatgcaac cgtgtgaggg cactgaggtt gtaccaagca atgcaagatc gcacgtttgc   240  
ctgctgtctg ggggtgtatat ggggggcgtc aagggttctg tcaggttatc atttggacta   300  
agcggggcca aggaagtggc gatgaagctg gcggtaaggt cagatgacc cgaagtcagc   360  
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<210>       10700

<211>       293

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-021-Q1-E2-A2

<400>       10700

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tagattacat gatttgttga tgaagataag aaagaagaac tgatggcaaa caaaccgagg   180  
aaagtcaccg aagaatgaag gtgggtgcga tgccacatca gaagggattt aagctaaggg   240  
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<210>       10701

<211>       420

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-021-Q1-E2-A5

<400>       10701

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cttgatctcc gtatgggtta tcatcagatt cgtattcgtg agcaagatat tcccaagacg 180  
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 gtcctccga cgttctctcg catgatgaac ttcattctca acccctacac caatgaattc 300  
 gttctgggtct atctcgacga cattctgggtt ttctcgaaga acaagaaaga tcatgccaa 360  
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 <213> Triticum aestivum  
 <223> Clone ID: LIB31-021-Q1-E2-A7  
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 gaggattgca aagctcgccg gtgggtgtgc tgttattcag gtgggagcac aaacagaaac 180  
 tgaacttaag gagaagaagt tgagagtga ggatgctcta aacgcaacca aggctgctgt 240  
 tgaggaaggt attgttgttg gtggagggtg cactcttttg aggctggctg ctaagggtga 300  
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 ggcgctgtgc taccactca agttgatcgc caag 394

<210> 10703  
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 <213> Triticum aestivum  
 <223> Clone ID: LIB31-021-Q1-E2-B1  
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 ttggtcacat gcatgggttt cccggggaac aagaacaaaa cataatctac tgtaaaatgt 180  
 ttaatttttag tcggcagtcg cgggtgtacgt acgaacgagc agcttgcttg ctgggtccctc 240  
 cttcccacac caacgcctgc ctgcatgcat gcatgcatgc ccggccaccc gggtttttgta 300

catactacac cgtggaatgt tgctcaaaag attttgatag atcagtgtag gtatatatca 360  
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<210> 10704  
<211> 398  
<212> DNA  
<213> Triticum aestivum  
  
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cacgagttgc gataaactgg tgacgaaatg gatggaaacc actgtgtttt caaaaatcgc 180  
catcaattaa tggaatctta gcaaccagca ccataagaag tatttgatga ttagatgaca 240  
atggtgcaca ctaaggaacc cgtccgtgat gaattcatca attccaaatg tttggaaact 300  
accatgcgtt ttgcgccagc acacattgac taatctaaca cacacaggtc aggtggatca 360  
actgaatgcc aagtatcgca cattgttaaa aaataatg 398

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<213> Triticum aestivum  
  
<223> Clone ID: LIB31-021-Q1-E2-B4  
  
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catgtcagcg caagcgttgc tcgagtttgt tgcacttgtc gataggatgc cggatgtggt 180  
cctcacataa ggcacagatg acatgattta ctaggctcgg gagagcatgg ggcagttctc 240  
tgttagatcc gcatataggg cattcttcgc tggcttgatt gagtcagacg gtgccaccca 300  
gatttggaat tcgagagttc caaattcttg gaagttcttc atctggcttg cggtagaagt 360  
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ttc 423

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 <213> Triticum aestivum  
  
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 gccctggcag ccgaagtcca ggccggcaaa ggggcacgaa aaccaggaa cacatcaagg 240  
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 accctaaata gggatacgct cccacaaca cggtttctcc agccacgaaa tacgtacctc 360  
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<210> 10707  
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 <213> Triticum aestivum  
  
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 ccggagtcct gttagcctgc tacagcccg gttaccggag tccagttagc ccagtgtctac 300  
 agcctggatt cactcgctga tgaccgacac gtctgatgct gggcatgga tgctgtccc 360  
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<210> 10708  
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<213>       Triticum aestivum

<223>       Clone ID: LIB31-021-Q1-E2-B8

<400>       10708

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ctcgtagaca actgcacatc tatacctgac gttcccacgt acgctagtgt gcaaatacata  180
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catgatacgg gaaaggcctg cacgatctga acagctaact gctgcctgta tcactagtat  300
acacgctgac cataacctgt gtcgcctgca tccgcattccc caacttcagc atcctctaca  360
ggctggacaa tggctccttc attgaccacc tcccaa                               396
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<210>       10709

<211>       384

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-021-Q1-E2-B9

<400>       10709

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tgcttgatct tgtggactct gcactcctgg atgttaaccg tgaacaagcg ctgctatgcc  180
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cacttgaaaa gctctctggt gaaggtgaac caccatatct ccctgtacaa ttctcaacgt  300
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<210>       10710

<211>       413

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-021-Q1-E2-C1

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cagtgggttc atggcgttta acgtgccgcc ccttcgcggc ccgctctgga tacttggaga 180  
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caaatccgcy tgatttggtg atcccagtat ctccagtga tcaaggctca aggccggtat 300  
tgtacataat ccaagcacgt gtaagttgcc aggtcaacaa gaaatttatc agtagaaaag 360  
gaacaaaatg aacttgccat cggcatttca catttgtata gctatttgct gtg 413

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ttttctcacc tattgtccaa gaaaaagcca caaaaaaagc tagatctatt catcctttgt 180  
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tgcategtcg tgcgagttg ctggctcttag tgtcttggtc gtttagagtt tcgagttctg 300  
ttcacattag tcacgccgcc gctgcatcgt tatccctttc gctgtccacc acccattcat 360  
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tc 422

<210> 10712  
<211> 419  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-C11

<400> 10712

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gttcagaggt tcaaccagc aaaaggggct tccaataata gcacaagtaa gcccgtttta 240  
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gccagcaggt taccactaa tgctgctcca aaaagtagag ctagcacctc tgattcagag 360  
gatgagaagc cactgtctgc ccgattttca agaggctactg caggtacatc tgcgagtat 419

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<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-C2

<400> 10713

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cactacaaca acaacacaca tctaagtttc tctttctaata ctataaggca cccccgatg 180  
tcaccttaag tagtcccaaa aggcatacta cacaatcacc tcatgatctt tategttcta 240  
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<210> 10714  
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<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-C3

<400> 10714

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cccgcttttg cgcgggagag gatagctggc tggcaagatg cagtaccaat gactcaagta 180  
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atagaaaact gcccctaag gataacaggg aggagctatc taacttaaac aaaatcttgc 360



acaaggtatg ccaaatccac agtacccccg ggaagcccg aaatcatacc cacaaag 417

<210> 10715  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-021-Q1-E2-C5  
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 taaaaagccg atggagcaaa agcacgttga aaaaagaaag gctttcttaa agttacaggc 240  
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<210> 10717

<211> 414  
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 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-021-Q1-E2-D1  
  
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<210> 10720  
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 <212> DNA  
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 <223> Clone ID: LIB31-021-Q1-E2-D12  
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 aagtcggagc atgatttatt tattgattgt cttccttatg agtggcggtc ggggacgagc 360  
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<210> 10721  
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<210> 10722  
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<223> unsure at all n locations  
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<223> Clone ID: LIB31-021-Q1-E2-D4

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 atcaatcggt atattgctat gccatgccat atttagctga tatttgccgg aatcgaagag 120

cctgtggttg aatgattgcg atcatgtcgc atcataaatg tcactcacat acgctaccgg 180  
 attggacaca gtcgtcaatt actcttaaatt gtgcttcttc acaagtaccg atgtgcgtaa 240  
 tatctgttcc caccttgaag tttatgtcac cagtatttat taacgacatg gtatcgatgc 300  
 tgctatcgat gagacagcta tttgtcttta catgctttca acactttcaa ataattgagt 360  
 cattacatac ctgaacctac ttccgaatac atatttgcca ttgatctgct ctgcagcc 418

<210> 10724  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-D5

<400> 10724

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 ctccatgcag cgetctctta ggtatgatgg tttgccgagt tctggctggg ttgctgtggt 120  
 ccacgactgc ttttaaggttt gattgagccc atttcgattg tcggtgaacc ctgacccta 180  
 agcgactgga acttgtacct gctagcggtt ttctgtatgc agtggcttgg ttgcctttcg 240  
 gttgattttc cacaagatg atatagtgat gtgtaagtgt aaccttgttt tatgtgtatc 300  
 gtttgcattc agacagactt agtcaagaag atgcatgcaa tgctactaat tttcaattgt 360  
 ccaaagtgac atgtcggatg ctctcaggtg caaatgctg cgacctgaat ggtc 414

<210> 10725  
 <211> 309  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-D6

<400> 10725

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 taaggttagt cctgatgtgc atcccgttga tactgccgca tagattgtc aggtgcatct 120  
 gtgcgcttgc gcaagtcaat gatgtcaaga acacttgact acttcattca cagagtcac 180  
 tgttacaaga gttcgaacgt ttctctctgc aggcttccac gacattggcg tgatgtccaa 240  
 cctagctagt attgaaactg cttccagcca attcacattc aatatcatca tccacgtgtt 300

tgcccacag

309

<210> 10726  
<211> 331  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-021-Q1-E2-D9  
  
<400> 10726

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tctgatcggtc atccctcgtg gagtctatct tggtaaccgt ataacactag atcgatgctt 120  
gacaatgacc gtattaatcc gctaggagtc atcgaccttg tggtcacagc aaccactatg 180  
ctacaccaca tcagagaaca cctgctgtac aacttaagca tatgctagac ttgctacccc 240  
atacatctcc accacactca tatttggatg tggctaataa aatcctcaat aattctgtcc 300  
atcataggta tagtctccaa catccatctt g 331

<210> 10727  
<211> 444  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-021-Q1-E2-E11  
  
<400> 10727

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ggagtccaag tccaaagaaa aaaaccatca cgtcgttcag cgtcaagatc tcggtcgaga 120  
tcagtttctt cccattcaag gtcaccgtca aaggaacgct ctccatcaag atcaccagca 180  
aaatcccaat cccctgtcgc tgcattctcc gtcgtcaatg gtgaagcagc aagccccaag 240  
agggacccaa gcaagagccc atcacgttcc cggctctcctg atgccaatc agagtaaaac 300  
tgatgcgagg ttaggggagg tgagaggcgg agccatgggc ttcaaattct tcatattttg 360  
tcttcgccga cttctgcata cgctgttata gtactatctg tgttcgggta ttctaggttc 420  
cttgatgttt ctgtaaaact tggtt 444

<210> 10728  
<211> 303

<212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-E12

<400> 10728

tgttccttgg agatgtgttt gtttcaccgg ttgataatac ctcttggtat ctgctgcaaa 60  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaga 120  
 acaaaaaaat ccaaacttaa aatatgaatc aacacaaaat catacctctt ctataatatc 180  
 accaaaattc aaatcaatgg acgtcatttt acaacttcgt tatcagaaaa acccttcagt 240  
 taaacaactt aatcacctta cagaacatca ctatttcaac atctggcata ataaccaaga 300  
 ggc 303

<210> 10729  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-E2

<400> 10729

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 tgggggtggaa gatgatggcg cggtcgaata aataaaggac caagaggctt tcgcctccct 120  
 agcccaaggt gtgcctgatg agcatgaaag aatcatatgg gataggaaaa tttgtgttgc 180  
 agctaacctt catgggttaat gagatgagc atattggata aaagatgcag gtaaacatag 240  
 ttgtggaaaa gttactatgg gttgttcctg acaaatgtct accaatcttt ggcaccatag 300  
 agtagtggag cgatgtgagg aagatgtcga cgatggaggt gattgggtgg ctgatgacct 360  
 atgagctggc gttgaaggga cgtgaacgag gctaaaaaca agagcaga 408

<210> 10730  
 <211> 306  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-E3

<400> 10730

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tcacaaaacc ttgcacaagc tagcatgtgc aatgcttaac acagaactgc agtcacaatg 120  
 ttatgtcacc gcaccatgtg tgggctatgt ctgcccaatg tgttgtgcca caactgtttt 180  
 acaactgcgt ggttgcgcta tgctgcctgg acaattgctt gcatacaccg acaagttgca 240  
 acagaatacc ctactctaata ctctaataca aagatcatct gtttacttcc caaacaatct 300  
 gccgct 306

<210> 10731  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-021-Q1-E2-E4  
 <400> 10731

ttcaagtatt cactgcaaga ttagcatgac gaatatattt catccaacag agtcacctct 60  
 catagcacct taccatgccca taccagacat aaccgtcttg actgagaccg gcgacaaaact 120  
 catgcctacc caaggcagag gttttcccg gttcctgccg gtatgcatgc aaggcatatg 180  
 aggggtgatta tcatcacaag tgtgtccatt accaacagca tggaatcaac aacatgcacc 240  
 catgcatatg atcatatcac atgaaataac aagtccttcg aaatgcggtg gtgttataaa 300  
 tgtatcaacg atcacaccat aaatattatg ccgggggttca gaatgcttgc cttcaatgtg 360  
 tggaaaggca cgggtgcactc caaaactttt gaaagtttcc tccctctctc caaaataa 418

<210> 10732  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-021-Q1-E2-E6  
 <400> 10732

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 aacatagtca tcatcgctat cctctgggtc tgagtcggtg tcgtcgatga tgatgtagtt 120  
 ctctagacag gtgcaatctt cgtcttctcc tccagttgcg ggaaatcca tgaatacttt 180  
 tagcttcttc ttcagaccat cgtccttctc cactagtgtg gctatttcct cctcatatcc 240  
 atcgcgtgta gacttgagtt cttcctccag ctccatgatc ttgggtcatgg ctttcttttag 300



atctatcatg cctgcacaca tctggttctc ctggcgctga atgtgctggt ttaactcctg 360  
gatgaaagct gcaattgatc tatccttcct ggtgttgatc atctcccatt gctcatctcg 420  
gctcccacaa atctggtaga ta 442

<210> 10733  
<211> 421  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-021-Q1-E2-E8  
<400> 10733

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aaacaagaag acaaatgccc agtatctgtt tgctgatcgg agctgtcagt tcttggtaga 120  
cttactttct gccctcggat tcagaagagt actgtgtgtt ggaacaccaa ggttgcatga 180  
gctgatcaag ttgacagcat caggtgacaa gaagtctaac attaaaagcc ttttattgga 240  
tattgatttt cggatttcac agttttatat ggaagatagc ttttgccatt ataatatggt 300  
taaccatcat ttctttgatg gaaagactgc ccttgaagta tgcagagcat ttttacagga 360  
agataaaggc gaaggaatca ttatggtgac ggatcctccg tttggtggct tggttgaacc 420  
t 421

<210> 10734  
<211> 437  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-021-Q1-E2-E9  
<400> 10734

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ttgactcaac catatggtat cagaattcca aattgcgcgg tgagaattca cactacatca 120  
acgactttat caaatctgct ctacgagaca actgtccaat aacacgtgac caaattatta 180  
gaggaagagc accaccttag tacaatatcg gatacattac acaatcttaa tatggcttca 240  
gettagacaa gttaggtcac taaagctgtt ttcaagtatc tggctctggca tgtgaatcac 300  
atacagtaat tcattctggt gacaaaatta ccctgctcaa ccgaattacc cacaccacat 360

tgcaaaactca ccacaatgcg tacacttttaa cgctaagcaa ctatatctac aaaacaagag 420  
tcgtcagtag ccactga 437

<210> 10735  
<211> 430  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-021-Q1-E2-F1  
  
<400> 10735

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caagaacaag aagcttggtta agaagctagc caagaagtac catgctttct tggcatcaga 120  
ggccataatc aagcagatcc ctctgtctct tggccctggg cttaacaagg caggcaagtt 180  
tcccactctg gttagtcacc aggaatctct tgaagccaag gtcaacgaga caaaagctac 240  
agtcaagttc cagctaaaga aggttctttg catgggtggt gctgtaggca acttgtcgat 300  
ggacgagaag cagatccaac aaaacatcca aatgagcgct aacttccttg tgccctcct 360  
gaagaagaat tggcagaatg tgaggtgcct gtacgtgaag agcaccatgg ggaagcctgt 420  
acgtgtgttc 430

<210> 10736  
<211> 425  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-021-Q1-E2-F11  
  
<400> 10736

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agttaaataa agtagtttta ttaattaaat caactagcta gttcaactac taaacactta 120  
ctataaataa ataaagtagt acttactaaa acaaaactac tatatatagt aaaataaagt 180  
agtttattaa atcaactagc tagttcaact atatatgaag cacttactat aaataaaata 240  
aagtagaatt actagaaata aactagtatt tttctaacta attagattaa acactttctc 300  
ttcttatttt tttcattttt ctaaatacgt actatgaaca aaagaaacat taaaaatcca 360  
taaacaaaat tacaacagaa aaaaatcata aagattctat gaacaggaaa tctatgaaat 420

acaca

425

<210> 10737  
<211> 436  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-021-Q1-E2-F12  
  
<400> 10737

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gcaacttata ggataaggac acttctgagg atgaatgcag ggtcaactgt atcagagtgc 120  
gatttgactg gtgatctttt taacactctt gaacatcaca gggatctcat cagggatctt 180  
aacacgtcat ccaacttaac tccgagcaga tgccaaacct ttaaggacgc cacgaaataa 240  
ggagttatga ttccaagtga tattgatgtt acatttgaga attttcccta ccagcttagc 300  
gagaatacga agaatgtgct cttatcatgt gcaatcttac atttgcacaa gaaagaattc 360  
attatgcagt tctccgaaat ttcatcacta aatcagcgaa ttttattagc cgggccatca 420  
ggttcagaga tttatc 436

<210> 10738  
<211> 418  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-021-Q1-E2-F4  
  
<400> 10738

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tcgcctagac acaaggaaga atcggcataa gaggaagatt ctcgactctt cagcgtgtcc 120  
tacatgtacc cactcggttg aggatcgaca acaccttttt ttacttgtcc agcagctcgc 180  
atgatctgga gagcaaccgg catctgccct ctttactctc ctatcacaag tctcttcagc 240  
acgaagcttc cggatccgct gcctatcaca gtccgccctt tcatgctcct tttgattctt 300  
tgaaaaatct gggacgcacg caacacgaaa gttttccaag gactagatgt tgtggcctca 360  
aactccttga gagctatcct ggatgatttg agtgtttggc ctcatacact agaactcg 418

<210> 10739  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-F5

<400> 10739

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 cctcatccca aatcactttg tttacgcgtc cgttgtctgc atttttattc tggggcaatc 180  
 gattcccact gggaaccagc accccttgag gcaccggagc tcctatgctg ccggttggt 240  
 ggtgtctaac gtacggggga tgggccgcaa cttcgtcgcg gaatcagcac ttatatggct 300  
 atattacagt tgcgtaggtt ggaggtactg ccgccgccgg atctagataa cgacgagtc 360  
 ttgtgaattg gcccgggggc g 381

<210> 10740  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-F6

<400> 10740

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 caacggttct acgtcccctc tccgatcagc tctttcatgg gacaggcaat tgaaggatatg 180  
 gactacaaca gtacagactg ttatatatct ggaaggcgaa attttggggc ggtacctgct 240  
 tattgaatga cagacagtta tataagagag aatattccta ggtttgccat gacatacaag 300  
 atggtggcaa ggccttgctc gtttttagagg acatgggata catacaggaa gcagctgaaa 360  
 ttgatgttg caagtctggt atttacaata aatctcatga agtcattcaa catacgtgtg 420  
 cgaacaaaca atttgtcttc ctgga 445

<210> 10741  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-F7

<400> 10741

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tacagccggg tcgagaccgg aagatgacgt gcatgtagta gtgtaagcaa gcctcgactg 120  
cccgtactgc agacgcaagt gcgtcacatg tgggatctat atgtgccaat aagacgtcag 180  
gctggtcgta cgatagtac agacacaact caaccatccg tgtcgctcac gattcgtcac 240  
gttgatggga aacgttgata caaagcgtgc ttcacgagct ttgcactagc tcggccactc 300  
cttccgcacg gtcactctga aggcacagtg cagacgcagt cgcagcagtg gttggctgat 360  
atctcaccac tccctgtgat ggaagtagtc gtacctg 397

<210> 10742

<211> 451

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-021-Q1-E2-F8

<400> 10742

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tattcaacc aaatttattg attcgacaca aggggagcca aagaatattc tcaagtatta 180  
gcagctgagt tttcaattca accacacctg aaagacttaa tatctgaaga aaagtactta 240  
gtagcaaagt agtatggaag taacggtaac ggtggcaaaa gtaacagtag catttttgta 300  
gcaatcgtaa cagtggcaac ggaaaggtaa ctaagaaaag atcaatatgt gaaaagctca 360  
taggcaatgg atcaatgatg gataataatg tcagatgtga ttcctcatga aacagttata 420  
acatangtg acacagaatt agctccaatt c 451

<210> 10743

<211> 402

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-G1

<400> 10743

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caacatcgtc tgcaagaagg ccgacatcga catgaacaag agggccggag agctttccgc 120  
ggaggagatg gaccgcctga tggcggtggt gcacaacccg cgccagttca aggtgccgga 180  
ctggttcttc aacagaaaga aggactacaa ggacgggagg ttctcccagg tcgtgtccaa 240  
cgccgtggac atgaagctca gggatgacct tgagaggctc aagaagatca ggaaccatcg 300  
tgggtctcgt cactactggg gtgtgcgtgt ccgcggtcag cacaccaaga ctaccggcag 360  
gagaggaaag actgttggtg tctccaagaa gcgataagct gc 402

<210> 10744

<211> 441

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-G11

<400> 10744

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agtgttagta tgtgagattc actaaatcgc atacaaagta atgttttgag tgccggatgg 120  
attggtcacc ataccgactt actcatacta ttcgctttgc tatatgggat ggaaaatctg 180  
agtgacttac ctatattaca gagacaatga tcaagtcctt gttcagaccg tagaatggta 240  
ccataacatt tcccttgtag actgcagctg ttgccaactc gtaggacata ctgtgagggt 300  
cactgcacac ccattttcct gcatgagaca ccatagcttg ttgactacca tgagatatct 360  
atacttgttt agtattgcga gcagaatcat cagttcagaa catacagtct cgggataacc 420  
gtaccattat gagaagacat g 441

<210> 10745

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-G12

<400> 10745

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cegtgttcac ttcccgaact ctgctgaaaa gagaccatca cggctacaca cgcgggttgat 120  
 gcgtttttatt tcagtcaagt gtcaagttct ctacaatcgg atattaacga attcccatct 180  
 gccacataac cgcgggcacg gctctcgaaa gtttaaacc tacaggggtg tcccactta 240  
 gcacatcata agctctcacg gtcaacgaag gatacttctt ctcccaggaa gaccgatca 300  
 gtctcggaat cccggtttac aagacatddd gacaatggta aaacaagacc agcaaagatg 360  
 cccgatgtgc cgacaaatcc cgacaggagc tggacatata tcgtttctcaa ggcacaccgg 420  
 atgaacacta tgttcaa 437

<210> 10746  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-021-Q1-E2-G2  
 <400> 10746

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 ttgatgcgtt cctgctagcc tatttggttag ctgccgctgc tgatctttta gtcattgcat 180  
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 gtgttttctc atgtcatgtg agtccaccat acctatgtct gtcagccttt ttctggatcat 300  
 tgtcctctct ataggatttc tgtggcctct ctttgcatg ttgatctaag cccattccct 360  
 tgccgccgag cttctttcgc cgttggtttt catgggccat gattcttttag gcaatgcttt 420

<210> 10747  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-021-Q1-E2-G3  
 <400> 10747

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 gtctgttctt catacctaca atccacaaaa aagccaaaaa aattagggtt agttcatcat 180

atctgaacca atctgagcct ttgcatagtc ttttttagagt ttgcttttgt tgaatttgcg 240  
gttgcatcgt cgtgtcgagt tgctggctct agcgtctagt cccttagagt ttcgagttct 300  
gttcacaggt tgtcacgccg ccgccacacc atcgtcatca tcattgcctt atactaccac 360  
cccaccatat acatcgccgc tgccatatac aaccaccaat ccgagtccac atataacatc 420  
gccatataca accaccaatc cgag 444

<210> 10748  
<211> 395  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-G4

<400> 10748

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ccccagcaag caaccgtgta ggatggcccg tcctgactat gtatatagtg gagcggtttc 180  
cttttctctc catatgaacc tatcatattg cgtacgtgcc actgaagaaa aataataatt 240  
tataaatgac gcgacaccta ctactcgttc tcctataacc ttgcgcttgg catctccaaa 300  
atattaacct tgtgattggc tcttcgcctc ttcgggaagt cgagcaataa tggtagtgca 360  
gtatatatcg ttctggctat atgagaccga atgaa 395

<210> 10749  
<211> 362  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-G7

<400> 10749

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cgggcagtga ccagtagcat aaaacaattt acatcttagg tttcacctga catcgcatcg 120  
aacacctaca attctgcaga taaatatgac ataccggcgt cggcagtggt tcatgaagaa 180  
tctaacgtat gtatcacaca cttaattgac aacataacac ttgatttgac atcagttcac 240  
gccattgagg atgatgtggg cccacctaag taacgatatg gcctgacgaa ctcgattaca 300



agttcggatt gacgatgaca gtgctcctag gtccgtatct atagaacata ccagattgtg 360  
ga 362

<210> 10750  
<211> 212  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-021-Q1-E2-G9  
  
<400> 10750

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tgaaggcaag tttcggtaat acataagccc ttactagtta agtataatta ccacaggtcg 120  
aatcttgat aggcacacaa tcatcaaacy gtggatatctg agcatgagtg aaaacagaaa 180  
aggacaacat tgacgcttaa ttctgcatga tc 212

<210> 10751  
<211> 409  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-021-Q1-E2-H1  
  
<400> 10751

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atcatgataa atgtttatta tttactctag aattgtatta aacggaaact tattccatgt 120  
gtgaggacat acacatacac agtgtcactt gtatgcctct acctgactag ctcggttgatc 180  
accgatggtt aagtttaaga tccatggata tagagtittcc atttgaacaa cagggtcata 240  
tcattataga atgatgttat tgacttgaac caaccgtaag cttatcacta tgattgttta 300  
atttactgct attgctttct ccataacata tacatgttcg tatgactatg agattatgct 360  
cctcctgaat attggaggaa cacatagtgt gctatcaaac gtcagaacg 409

<210> 10752  
<211> 263  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-021-Q1-E2-H10

<400> 10752

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attcgggact acgaggggaa tgatatcttc actgtgctca agattcccat ggatgtctcc 120  
cactgtcgcg cgttgttgca tcttccatcg tggatattca tcgaacgacg tgttcaattg 180  
ggtcgtcatg gcatctaaca gatattgaga gctctatggg ctaagccaca tcgtttacat 240  
gctgatgtat tgcgtgctcg tgt 263

<210> 10753

<211> 215

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-H12

<400> 10753

tggtaagatt ctgatgcagc tctcttactt gataagatga tgataagaac attcatcatc 60  
ttccttgtagc atatctcttg catctttaat atcatacata tcagcattac catacattca 120  
gtgagtccag tcatgaactc aatcattcaa cgtgtcgttc tctcggtcgg tagcatccta 180  
tttaggcgca tgcttttcga cagcgaaca taaaa 215

<210> 10754

<211> 371

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-H2

<400> 10754

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tgcattatat cgactatacg gggggtgaat acgcgatttt tatgaattcg tctactgagga 120  
atttgccagt gaggaacttc cttagcgaac aactacttgt aacagaataa gtacgtatac 180  
gtaagcatat cacagtacag acatagtcac catgatgaat tggacacaag catagcgtac 240  
acaaagcgta atcatatcag aacacacgat gaagacaaac atactgacga aattgaacta 300  
acgaaattga gaaagtcac agtcagagtc gtcaaacata gatatgaaca atcagtcac 360  
acagttatga g 371

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 <211> 413  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-021-Q1-E2-H3  
  
 <400> 10755  
  
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 gccggtatgc tcatcgacga ctactacaac aacatgagga agaagatcac caacgattaa 120  
 cacaagcact ggaccaccct gcctctgacc atgaggcaca tcgagtacgc ggcaaaggac 180  
 gcctacgcag cgtacgagat gtggagccgc atcaccctca cccaggacgg gcttcgccgt 240  
 gcaaagctgg agaaggagga gcccgaagaa gcgcgccagg agtagccaag gagactctaa 300  
 ttggtgaaga agcagacggt gccggccaag agccaacatt gctcgcgtca ttttagattt 360  
 atcatcaaat ttgttttttt gtttgcttat gtaacgttag tttgcctgtg atc 413

<210> 10756  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-021-Q1-E2-H4  
  
 <400> 10756  
  
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 caaactctgt tgctccatgg tacataacga cttcgcttac agaaggactt ttggctaaca 180  
 aggaatttga ggcctccgtt gtgagtcgaa ctccactggg gcgtgtcgga gaaccaggag 240  
 aggtatcatc gctggttgct tttctttgca tgcctggttc cacttacata acaggccaga 300  
 cgatctcagt ggatggaggt atgagtgtca atgggttcta tccagcttga agactannca 360  
 aggaagaggc atatttcgct ttgttgcc 388

<210> 10757  
 <211> 353  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-H5

<400> 10757

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agctgtcact tgtgtactcg ttgacagtgt aatatcaatt aaagcaggtg acctgggcta 120  
gggtcatgtg ctgagcgggc agatagaccc agtgcattgt ttgagtgcag atcggtatgga 180  
ggtcaagaat gtgtcacatt gccacacaat gtttctgacg tctcgtgaat tccacaatgc 240  
gatgaatgaa cgtgagctgt cttcactgac agctgtgctc aagtgcgtca aggagcaaat 300  
cctggctgag caatatctgg tggaccacaca tcagtaaatg ctgattcagc tgg 353

<210> 10758

<211> 398

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-H6

<400> 10758

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agtcattctc agcttgggca gagccttggg cagcttggac tgcgtcactc gtgggtgctt 120  
gggagctttt tctgtcaggg ctgggttatga ggtccgatag gcgcttcgac ttaagctctg 180  
catggaatag tcgtcttagc accttctcgc agtgggtcat ctgttagctt gggtcgccgt 240  
tccgttcacg gagatctgtc ttcttctcga tctgtgcac aggtttcacc ttccacatcc 300  
acctctcatt tctggtcagt tccgtactct tccctcacgt caccacgtta gcctccactc 360  
gcatcacgat tatcaggctg ctcatgttct ccatcccc 398

<210> 10759

<211> 407

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-H8

<400> 10759

gaattcatct caattctagg tgggggtgtaa gtttgaggtc atgcattgca taacaatgtg 60  
caacgtaggc ctgtaattc caggggatcg tcactcttca caggttccta aacatggatt 120

ccaatttcgt ccgaggtaaa tgcattgcaca tcattggtac aggatcgaca taatacattt 180  
catctagcgt atgacgtctg tggtggccta gctgactaac tgtatctggc ctgtaacata 240  
gcgttcacaa attgatgagc agcgtactgc tttatgactc acattgacgt ctataggatt 300  
gataacatgt atcctacagc attattacca gtcattcagc agtaaggcca aggtgattgc 360  
ttgttcattc ctatgcattt atctatcact ctctcagcaa gcttgtc 407

<210> 10760  
<211> 141  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-021-Q1-E2-H9  
<400> 10760

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cgtaaaggca gctcacacac attaggcgctc gctctagctc attggctcgc tctcggtcca 120  
tggcggctctt gtgcctcact g 141

<210> 10761  
<211> 121  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-022-Q1-E1-A3  
<400> 10761

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gtccagccc ctgctgcgaa ggacctgaca tcaagtcatg agtcatttgg ttgtcaattt 120  
g 121

<210> 10762  
<211> 424  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-022-Q1-E1-A4  
<400> 10762

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ggctcttttag tgaaatgggc ttcctgaact gtcgccgtgt gaatatgctc caagaacaca 120  
 ttgctgggaa tggtttctct cttggaacct atctttgcca attcatcggc tgcttgattt 180  
 ttcagttggg ggacgtgggtg gagttctaac ccctcgaact ttttctcaag ctttctcacc 240  
 gcgttgagcgt aaccagtcac ggctgtactt ctgacgtctc actcctttat cacttgatta 300  
 actaccaaact ctgagtcgcc atagaccatg aggcgacgaa cgccgagtga gatggccatg 360  
 cgcaacctat acagaagtgc ttcagagtga atctggaaga catatctgag cttgtctcct 420  
 cggt 424

<210> 10763  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-A5

<400> 10763

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 gcttggtgta aactatgctt tatcggcagc gtgggggttaa aagattggat ttgctggaag 180  
 aagcgaatgg atggaaaacg ccgtttgaaa tttgaccggt ttacgtgtat agctgggggtt 240  
 gtaattggtc agtcaaagag gcactagctc tcacatatgt tgatgatgaa agtaaagggtt 300  
 cttgcgaaac tgccttttct ggcattgaac tgtccaagtg ttctctctct ctacagtatg 360  
 tttagtgggtt cttgattcat gtcgtgtgtg tgattggggc tagagaaaac gatggatttt 420  
 t 421

<210> 10764  
 <211> 344  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-A7

<400> 10764

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 ggctcgggag cttcctcaag gttgggaaca cctgccccaa ctggaaaaag gccttgaagt 120

gttgtggaag aagacctttg tgcggcctta cgtcgaacag cacgggaacc ggtcgcagtc 180  
 gtgtcggagt tgagatctcc ggtggcttgc gcaggggaagc tatcgcgcgc cgtttcgtaa 240  
 gtagaacatc tctgaaaaag ggtttagtcg tataagttga tttgtgtgag gcttgagaat 300  
 atgtttgtgc gctgtgcttt gtgggtgcttc ttcgggtctt cgcc 344

<210> 10765  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-A9  
 <400> 10765

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 agtcgcgagt tcttacctcg aaggcatcat tctggcaaac caagataagg ataacttctt 120  
 cgtgccttac tttcccgagt aagtcctccc ctcaaccggc ccgtaacata tgaattctta 180  
 gatttcgatc gttgttcttt taacattccg tgttttctgc agtgacacac attgcacgct 240  
 catcctccta agccccaat attccatggc cacgtatttc gaccocggacc gtcagtcgaa 300  
 cgtagactac acaaagtca agaaggttct tgatgatgtt ctccccggct acgccaatc 360  
 tggaggcacc ttcaccaggc ctattcgtaa gtacggcaag cacatgttct ccacacaatc 420  
 gacgt 425

<210> 10766  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-B1  
 <400> 10766

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 tagtttagat cgagtctgtt cttcatacct acagtccacg aaaaagccac aaaaaaaat 180  
 tagggtagt tcatcatatc cgaaccaatc tgagcctttg cataatcttt ttagggtttt 240  
 tgctttgttg aatttgcggt tgcacgtcgt tgtcaagttg ctggtcttag agtctagtct 300

tttagagttt cgagttcttg tcataagttg tcacgcccgt gccgcacat catcatcgcc 360  
 ttgccatcta ccaccattgc ttatccgcca ccgctttgaa cccgtatcca tataaccacca 420  
 ccgctgccat atactaccgc catat 445

<210> 10767  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-B3  
 <400> 10767

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 cgatttatag cggcgccgat tacatctaag ccttggtggt atcccaagag ggttggtccc 180  
 ctccgggaca atcttaatca tctacgtcgc aatccttaag tgtgtccacc atctataaaa 240  
 cgcattgatga agttgccgtc caacgtccgg taaatggtgg gttttgggcc tgcctctctc 300  
 tggcatcgtc gtccatacca tcgatgtctt cagaggcgta gtgaaacatg tcagtttagat 360  
 cctcgacagt gggatatgaag ttggggcggg ttggaagtaa aattccctat tttcaacccc 420  
 taatc 425

<210> 10768  
 <211> 221  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-B7  
 <400> 10768

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 gtacgtagga tttcttttgc atgctttgca tgaatctagc agataaaata tgagagaggc 120  
 gaatgcaaag tgactaattt aagaaatgcc tagtcaatgc acacatccac ggacgtttga 180  
 ggggatttgc caagtccgaa ggtagatgac tgttttttta t 221

<210> 10769  
 <211> 410



<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-B9  
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 gagctccggc tccgtttggt caatggaatt tgttcaatga gccctgtgga tggggcacgt 180  
 cgccaagttc gcttatagac gatgaatgtc cgggtgtaaag tgtatatgat tgggccgtta 240  
 ttggtggatt accaatacga tggtttcatt ttttttatgt cgttgcagga ttcaatgaat 300  
 ccatttttgt ccgtacgaat tgttgaacat cgttcatgca tgtcactgta tggtttgaca 360  
 taggctggtg aactaaactt tgcctgcatc tgaacatcac gtacatcgac 410

<210> 10770  
 <211> 359  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-C3  
 <400> 10770

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 tatgcccacg gcgacaccaa cgctgacgac cagcccgagc acagaagcca cgccgacgcc 120  
 gagcccgact acacccacgc cgaccccgac cagtctcacg gcagaggagc ttgccgtttg 180  
 atgtgttcca tgtctatgat tccttccttt ttgatcgctg aacttttggg tgtgtttgat 240  
 tgccgaacta tggcatgatg atcgctgact tgtggcatga tgatcgccga acttttggcc 300  
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<210> 10771  
 <211> 316  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-C4  
 <400> 10771

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atctgctcca catggccaag caaattggcc cgcagtgcga agccgccgaa tacgaagatc 120  
tgtccaggga ggaaagcctc gccctggacc gcatcgctag cgatgatcga aggagacatc 180  
aagccttatg atgacgacac agaggaactc tcaatgaaag caccaatgtc ggtgtcgaaa 240  
ccggcggatc tcgggtaggg ggtcccgaaac tgtgcgtcta aagcggatgg taacaggagg 300  
caaaggagac catgtt 316

<210> 10772  
<211> 394  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-C7

<400> 10772

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ataatattac atgttatcca ttaattaggc tgtggtaata taaaaacatt atgtgaacaa 120  
agggggtaca acaaacattg ctattctacg tatgttgctt attgacgtgc ggcttgaagg 180  
cccggtcgca tgttcgatcc tcgtccttta ttttttaatt tgtatatggg tccaaatttg 240  
tttcatgaca tgtgggcccc tcgggtgtgta gttttagca ctttaatttg tgggtcgaaa 300  
tttgtttcat tccaagtgga ctatcgggtg tagttttgt agcttattta taataattaa 360  
agagaacaac atagtttttt caataatacc atgg 394

<210> 10773  
<211> 421  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-D10

<400> 10773

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gcgtggagca gggtcagtcg tgtgcggcag cgaccgatta tctatttttc cctcggtcga 180  
tcataggcat tcaatctggc gtcctgact tctaaacaca gcagaagtct aaatcagatc 240  
gaaacattat catggaagaa attacaaagc tgtcctcgag ccaaatactaa cccgaataat 300

atcaatcggtt ggatgaactt aatactaccc attacatccg gtagtatgat gtaccgtaaa 360  
 atatctcgac atgacatagt ttgttttgtg gttgcttacc acatacatca tgtgaaactc 420  
 t 421

<210> 10774  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-D11

<400> 10774

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 atggtctttt cctaccaatc tatccctcta ggggcatgca tagtagtact tttcttcgag 180  
 ggctaataaa cttttgcaat aagtatatga gttctttatg actaatgtga gtccatggat 240  
 catacgcact ctcacctttc cgcaatttgc tagcctctac ggtaccgtgc attgcccttt 300  
 ctcacctcga gagttggtgc aaacttcgtc ggtgcatcca aaccccgatga tacgatacgc 360  
 tctatcacac acaggcctcc ttatatcttc ctcaaaacag ccaccatacc ta 412

<210> 10775  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-D12

<400> 10775

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 ccggagtttg aattaccatg gcggatggca agtcacagaa tgcaacgtta tgcatacgag 120  
 cataattttc agatatacaa gaatgtgagg ctctgtatc gaaaagaaca gatgccgggt 180  
 gtcaattaac aagaagcgta ccgagaacga cgttgggatc atcttgagct tcttcggcag 240  
 agatacagtt gacatggcca cgtgaagcgg tgaccggttt agcgtggaac acttttctctg 300  
 tcggcttgcc acggacaaca gcttttagcag attgattggg gttggtctgg gggcactcac 360  
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cattat

426

<210> 10776  
<211> 448  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-022-Q1-E1-D3  
  
<400> 10776

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tggttgctag taaaagtgc catattgatt gtaattttgt gccattctct actttgattg 180  
agcaaaataa tgatctcgta gatgtgaatt ttgtctctca aaacaatttc aatagtaatg 240  
cttatagagg taattttaat cctaggccat ttcctagaaa ttcctctaata atttatggaa 300  
attgctaagg taattattac aataataata ggatgcactc taatcttgaa agtaatgtta 360  
aaggatttat taatacccaa aaggttttca atactatggg agaggaaaaa ttgagtaaac 420  
ttgatgggat gcctaggagc atggatag 448

<210> 10777  
<211> 325  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-022-Q1-E1-D4  
  
<400> 10777

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gcttgccctg cggcgctcca tcgatcatgt tgtgcggcga gttgcagcct ctacgcgctg 180  
acatgcccat cttgatccac agtgctgaaa cgcaattgca ccaaagggtt gctcaagcct 240  
ggcgatgacg cacatcacgg gatcgtctaa ctcatcgccg gggagcgctg cagccttgaa 300  
gggccatggg tcccttatag ttttc 325

<210> 10778  
<211> 379

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-D6  
 <400> 10778  
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 atctttcgtg gtttacatcg tcccgtaaag gaaagagtca tatgtgcggc cacgcatgga 180  
 ctgtcacgta cgaatgtagt taaaccatat tgtcctcgct agccctttct ttttcatttc 240  
 aaaaggaaac caattaagaa tgtgtgttcg ttgtgtgtgt gtatttctag ctagtccaat 300  
 aaagggtcaaa ctccaagtgt tacgagttat gacacgtttt tgtgtttctc accgggggtt 360  
 ggcaatcttc gtggtaaata 379

<210> 10779  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-D7  
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 gtcacgaaga atggcggtaa ttctctaggc gtggcggtag ctatatatga ggagtgtact 240  
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 gcagcacata atttagctca gtttaccgag ggaaacaaa tgtggcaaga atccctcgat 360  
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 atgatggttt ttctc 435

<210> 10780  
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 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-E1

<400> 10780

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attaccaat acacatacat gggcaaaggc ccacagaact ctgcgcgaa gaaaatagag 180  
caccctacac acggggcgaac cacacaacag gacatggtct tgtgctaaca tatgaaacaa 240  
tggcccaagt agtcagcaac aacaagctgc tacttcttga acttgcggtg ggttttccct 300  
tgaagaggaa agggatgatgc agcaaagtag ag 332

<210> 10781

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-E11

<400> 10781

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tgccgccact gtggaatatt gaatcgacct catctcctat ccccggttgc tgcatgtgtg 180  
tataaatcca tacgctggcc gagcgcacgt cgctttcact aagaaacaga tcgaatgcat 240  
tatggtcggt caacttgacg atgagcagca agccagcaac agcaaggcgt ccctcagaat 300  
gtatatgcat tcacatcttt ttgtttttgc gggaaaatag actttgttct tgcttcgatg 360  
cgtataaacg tatctctcct tatgcgacgg gtgatgtaat atgtcacatc catgtacaag 420  
ctggatatcg gaaaa 435

<210> 10782

<211> 393

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-E12

<400> 10782

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gaacaatctg attttttctg cttatttgca gcgtaaacta tgtacagtaa tcattagacc 120

atctttgaag atctgacgaa caaaagcaga atgggtcttt ctatactggt cgaccccccc 180  
 tccccccccc ccttgcggttc tctcgaggg agtggctagc gcgcaacact gccatgctcc 240  
 tctgctgctc cgatcatcaca ggggtgggacg gcgacctcgc ctctctgttc attgttctgc 300  
 cggtagcgac gttctttgtc caggatcatc cggacagggg ggtcctccag gccatgcgtc 360  
 taggcatgta ctgcaacgcc gaccacatgg cta 393

<210> 10783  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-E2

<400> 10783

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 acaggatcaa aacctgactc tctgtacac ccccggtttc caaagttatt cccacgctt 180  
 gacttcgtat gtaatttacg ggtcaccttc ctaatgctca attctggcat cagacacaat 240  
 aattattccg tggctttaa accactttca cttctgact aggcattgaa cgattgcctg 300  
 gctgcctgaa acttcttatt gtaccttcca actttactct cgatgtgttt atttgttcaa 360  
 ctcgagaggt actcatatgc tcattcatgg gttaatctca tatcattacc cttataacat 420  
 actaccgttg cc 432

<210> 10784  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-E3

<400> 10784

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 cattagcttt ctattctac tctttcacia aggaatgcga agagaactca atggatctta 180  
 tcctattcat tgaatagatt tcttttttat tagagtatcg gcaagaaatc ttgggtattc 240

actctatttt taagttttat ttaagtaaac catgcacaat gcataggact aaccccccat 300  
 ttccaaattt taaatttgaa atactttaat taatttttag tccttttaat tgacatagat 360  
 acaaatactc tactaggatg atgcacaaga aaa 393

<210> 10785  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-E5  
 <400> 10785

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 ccccatataa gtgcatatac aaccaggaac caaagtgtat ttccaataaa gccgtggcca 120  
 actcagtctc tccatgacca ggacatgcaa ccaattagga actgaggaga gaggaggaca 180  
 tgcaaccaat ggagaccgga gccctcaatt tactatgttt tccagcagaa atcgctatgc 240  
 gcaaccggac gtgtacctgg ccacatcccc cactaaagca cgtgtcgccc acctattggt 300  
 ccgattttgg ctgataagaa aagtcaaaaa aacctggtaa actaaacctg accaagttta 360  
 gtatatttag aatatataga gagaaaatca aatcttttgt a 401

<210> 10786  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-E7  
 <400> 10786

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 tatgactcca tcagatacca tcccatcata ccacatcata atcattctaa tagcatgttg 120  
 gcacgcaagg taaaccatta taactcatag ctaatcaagc atggcacaag caactataat 180  
 ctctaaatgc cattgcaa atgtttactt cataataagc tgaatcagaa gcaatgaact 240  
 catcatattt aaaaaaaca gagaggtcga gttcatacca gcttttctca tctcaataag 300  
 tccatcatat atcgtcatta ttgcctttca ctctcatgac cgaacgatgt gtataataat 360  
 aagagtgcac gtgcattgga ctaagctgga atc 393



<210> 10787  
 <211> 178  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-022-Q1-E1-F1  
  
 <400> 10787  
  
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 gaaaaggagg atttcaagta caagatcgaa atgcatacgc ggattggcat tctctctgtg 120  
 tccgggagca ggacatcgtg cgtcggggcgg ctgaggacga cgtagcaggc cgggtgcgt 178

<210> 10788  
 <211> 361  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-022-Q1-E1-F10  
  
 <400> 10788  
  
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 agtggttcct tcggccaatc agaattttac acgtggaaat ttcccattgg tccgggctgt 120  
 ttttttctta aggttattgg tccgggctgt taacgggtta tcggatccaa aatccgacca 180  
 gatagcttaa cagcgttcct ttatgggtga tgccacgtgt cggtcaccct tgataaccac 240  
 ttctgtgatg cgcgatttat cgtaatggaa gtggacattt ccgtgatgat aattttggta 300  
 atgtcatgga acacttctac gacagcacat gtatgactat cttgattctg tcataaaacc 360  
 g 361

<210> 10789  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-022-Q1-E1-F2  
  
 <400> 10789  
  
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aatgacagtg gtgctgaggg agtcctggat tanggggtgt tgggtagcc ggactatacc 120  
 ttcagccgga ctcttgact atgaagatac aagattaaag acttcgtccc gtgtccggat 180  
 gggactttcc ttggcgagga aggcaagctt ggcgatgtgg atattcaaga tctcctacca 240  
 ttgtaaccga ctctatgtaa ccctaaccct acccggtgtc tatataaacc ggagggtaat 300  
 aatccgtacg caatcaactc catatacaac aatcatacca taaggctagc ttctaagggt 360  
 taacctcctt gatctcgtgg taaatctacc cttgtactac ccatatcaac aata 414

<210> 10790

<211> 412

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-F3

<400> 10790

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 gacaatgagc taggattcgc caaagatcgt acgattagca ggttgacaga gctcaacagc 180  
 agagagtact tggaggactt tgaagcagaa tggcaacatc ccctgcatgc tgtagataat 240  
 ggcggcgatg tcgtacttgc ataagtggca gggcttcattg tgcaaggacc gcattatagt 300  
 tttgttatat ctattatccc gcctggctta tggaggaatg ggagaaatgt tggttttcct 360  
 gtcagtgatg catgtaattt cagtgtgcc aatgcaagc acttttgcac gt 412

<210> 10791

<211> 265

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-F5

<400> 10791

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 gatgctgcta ctgaaataga tgaatgaagg gcatgacact atcatcctgg ctgggtgctga 180  
 ttatggcagt agaagctcaa tggattgggc tgcaaagggt ctaaagtcgt caaggagtga 240

acagcttgat cgcccagtag ttttg 265

<210> 10792  
<211> 423  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-F6

<400> 10792

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tgcaaaggtt gaagcaagtt ccattgttgc tgtttttggg cttggcacag ttggacttgc 180  
agttgctgat ggggcaaaat cagctggtgc ttctcggatt attggcattg acattgatac 240  
caagaagttt gatgttgcta agaactttgg cgtcacagaa tttgtgaacc caaaagacca 300  
tgacaaagca atccaacaag tccttgttga ccttacagat ggtggtgtgg attacagttt 360  
tgagtgcac cggaaatgtt ctatcatgag ggctgcactt gaatgctgcc acaatggctg 420  
ggg 423

<210> 10793  
<211> 437  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-F7

<400> 10793

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gtagttaga tcgagtcttt ttttcatacc tatagtccac gaaaaagcca caaaaaaat 180  
tagggtagt tcatcatatc cgaaccagtc tgagccattg cataatcttt tctgtatttg 240  
cgttgttgaa tttgcagttg catcgtcgtg tctagttggt ggtcttagtg tctagtcctt 300  
tagagtttca agttctgttc acaagttgtc atgccgccgc cgcacatca tcatcaccgc 360  
tgccatatac caccatcgtc atcaccgctg ccataacca ccattgacat caccgcaacc 420  
atataccaca tatccac 437

<210> 10794  
 <211> 94  
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 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-F8  
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 gcaacgggag gtccgttcac ctggccctc gttg 94

<210> 10795  
 <211> 370  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-G1  
 <400> 10795  
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 gaaatgaaga gaagattatt ctaaccagta gttagacttc aagtagtggc tttttattta 180  
 tttatgtatc ctctccatag aatggaatgt aatagttctg ttggctcaaa tggttgtaat 240  
 tgttggctac cttgcattta cgctggcatt tgattcatct ttgtgcaggt aaatcatgct 300  
 ctcttgagg agatcgagga gataaaccaa gggctcatag acacgggcct ccgtgtatgc 360  
 aaggatgatg 370

<210> 10796  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-G11  
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 aagaaactaa gaagaaaaag aaggatgggg aggaagaagg tatgaagaaa gacaaagaga 180

agaagaaaga caagggcggc aaggagaaga ccaacgatcc ggcaaagctt aagaagaagc 240  
 tggagaagat cgacgcgaag ttacaagacc tacatgctga aaaggaagac atcctaaggc 300  
 agctgaagga gctcgaagag ggaatgacca ctgaagagaa gaagcctgta cagatagtgg 360  
 aagcgagtgg caaaggcaaa gtccaaggaa gatgatcctg ttactggcac ctgatcttct 420  
 ggaaatcc 428

<210> 10797  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-G12  
 <400> 10797

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 aaatggtcag cacgaatatg ccattgtata actgtttctat gggttcttggc ctagaaaagt 180  
 ggtgctgcta tcattggcgt cgcccagaag tggcaagcac ggtgccttca tgatcattac 240  
 ttgcacattc tggccagcgt cagcaactgg attgtcacca tcatcgctgt tattgtcaca 300  
 acctccttat ttccccacct ctccatcctc ataatcctcc ttcatttcct cgtcgtcacc 360  
 atcagcttct ttgagtcggt gtagagttac ctgccatggg aaccatcggc gcaggatggt 420  
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<210> 10798  
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 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-G2  
 <400> 10798

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 aaggggtggtg gagatgttgg tcggggaagc atttgggtcc acaggatgaa tgtgtactag 180  
 cttcatctct cctgccgact ggaaagcgga ttccacagtc ggctttt 227

<210> 10799  
 <211> 360  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-022-Q1-E1-G3  
  
 <400> 10799

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 tcctgggtctt tggatgacgc atttatggat ggatggacac actgtttaaa ccgttattgt 180  
 atattgatga tcacttgtag gcgatcagtc atcttacaca tcgaattacc tttcgctgag 240  
 caatgattct gaatactgtt aaatactctt atgctacctg ttttcatcaa catttataca 300  
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<210> 10800  
 <211> 148  
 <212> DNA  
 <213> Triticum aestivum  
  
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 <400> 10800

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 catctgaaga aagtttacct caacaaat 148

<210> 10801  
 <211> 125  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-022-Q1-E1-G5  
  
 <400> 10801

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<210> 10802  
<211> 165  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-022-Q1-E1-G6

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nagtgatttg ccaccttgaa aggcttaata agaaaagcct tacct 165

<210> 10803  
<211> 392  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-H1

<400> 10803

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acggcacgta tccatgtggc cgacatctat caggctatcc tggctagcat gagcatcaaa 180  
tctacaagga agatatacaa tgtggtggat gatgaccctg ccccgagatc cgaggtcttt 240  
gcatttgctc agagcttgat agagaaaaga accctgatct tgcagcggat tctgcaggac 300  
caaacagcca gaacaagaat tatagctgct gaaaaacggg tatctaattg tccgttgaaa 360  
ctggagctgg gcgttaggct ttccccacca tc 392

<210> 10804  
<211> 412  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-H3

<400> 10804

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ccttggttac aggaccggaa caaaatgaag aagcagatgc acctactcaa gtcaaaccag 180  
 ttgctgttat acctggtacg ggaccagaag agaagaaagt agaggcatcc acccaagagg 240  
 ataatgctga agcagttgcc gcagagccag aatctgctag agcccaggaa aatgcggaag 300  
 cttctactca gcctagtcct atggagatag agtcggttca ggaaacagct atgctgggag 360  
 aagctgaaac caggcagcaa ctgccacttc cgtctgccga ggggtgtggtg gc 412

<210> 10805  
 <211> 409  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-H4

<400> 10805

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 ctgatgaatg tctctccatc agccaagtcg tcgcccttgc catggtaacc caaaagctcg 180  
 atgttgctga gtttgtggtc ctcacggaga cgatttgttt gaaatgcact gaagaccatc 240  
 tcctctgtta tgccaagcgc ttcaatagtt ggcttggtga ttgtcctgcc atgtttgctg 300  
 gtctcacacg cctgtggctg cgcaatatga tgtttggtga actggacatc cccaacatcc 360  
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<210> 10806  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-H5

<400> 10806

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 aggttccaaa ctatgtcaga gaacatcatt acaaagatag atgaaatggg tgcaagaatc 180  
 gatgaattgg agctgagcat caatgacctc aaggctgaaa tgggcagcga tggatgacc 240  
 cctactaaag tgaaggacga agaatcaaag ccagcagaca gctctgcctg atttaagcag 300



aagtagcaga agcaagtcgt attagtcttg gttccatgtc aatatcatca gccattcatc 360  
actaacttaa tgcattgtcat gagatgttag tcgcactgc 399

<210> 10807  
<211> 439  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-H7

<400> 10807

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ttccggtggt cttctttgga agcggatcaa gctaaccctt actcgtaaag ccaatgccaa 180  
aaccctctc cgtcgtgttt ggcagaatga ggctgttcta agggcgtgtg gtgaatcaga 240  
tgcaccaaat ccgccgggag ctagcaacac aaaaagctct agcaatgcgg tgaaaaatgc 300  
gtaaggccga agagaagcta gtcctagttt gtaaggactc gtagattaag tctctgtcgt 360  
tacctgattt tacaaaaata atatttgaac cttgtgtttg gttaatagtt ttgccaaaga 420  
agaggcacct ccacaccaa 439

<210> 10808  
<211> 374  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-A3

<400> 10808

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aggcccctga ggatcgtcgt ctaagcccat agcatctgga aacgcaacta gaaaacgggc 120  
ctggatcatt gctagccagt cagattatgc ctctaaagga cctatggcag taccggccaa 180  
agcaccacag caagtaagac acatcatgta gactacgagc catctctccc caaggaaagt 240  
gaaacctgcg tgtcctcgat ctccatctat ctgctaagca ggtaaggagt gacctgtcct 300  
aagagaaacg tttcacttgc ctcatgcaa actgcatcgg ttcaccttcc tcatccttgt 360  
cccgtgttc aact 374

<210> 10809  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-B1

<400> 10809

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 caagggactc ttcagctgct gtttctgcaa gatcaggccg gactgcagaa cgaaagctga 180  
 cgctgtgtac aggtctgaaa cccacgaggt gttccatggg tagcgagcat gttgtagctt 240  
 aagttaggag agatgagcac cgttgaaaca aggctgataa tgttctatca ttttggtagc 300  
 gatgtgggtg gccaaattcc attggaagtt agatcaattt acgccagtct ttgaactgca 360  
 gcctgctcct gagtctcgac tctagatgtg catcctagat gtcagag 407

<210> 10810  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-023-Q1-E1-B11

<400> 10810

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 cggaccatca ctaccttgaa aacatagcac atggtaccgg tggaagaaag tgggtcaaaa 120  
 aagttcagca agaatggggc atacttgaga agaatctacc agattatatt tatgtcaggg 180  
 tatttgagga tcgtatggat ctcatgagag ctgtgattat tggagcaagt ggcacaccat 240  
 accaagatgg tctgttcttc tttgacttct acctccacc tgagtttcca caagctcctc 300  
 cgtcggcata ctatcattct ggcggcttgc gtgtaaacc aaacctttat gtggatggga 360  
 aggtttgttt aagcctctta aatacttgga ctggcagang gaatgaagta tggga 415

<210> 10811  
 <211> 422  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-023-Q1-E1-B3

<400>       10811

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tggtgtacga gttcatgagt aaggacagag gttcccaatt cgagtgcgag tgcgggcatt  120
ttgaacacac aggcattgcta tgttgtcatg tgaaagggag gacagtggcg tgtacattgt  180
gcactacggc cgcgagttca ctgagttgtg cctccgggtca ccgctgagca gggtaagatg  240
caagaacagc agcctggaaa cctggaagat gcaagaacag cagccttgaa ggtcactgcc  300
ggtacacctg caccacacca ggctcctgg agggcctctg ttctgaagtg catttgtgta  360
gtgtggcgat ttgatttgac gatcttcag tgtgttcggg gagctctgct ccacccttgt  420
tc                                                                    422
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<210>       10812

<211>       369

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-023-Q1-E1-B4

<400>       10812

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cagacacata tcaaattcac aggaaccgga tgaagaccag ttatcatcgcg atgatgctca  120
tcgtgatgac cgcagctctc ctctatgtga tggtagttta gatgatcgat atcgacctgt  180
aatgtgaaga caaactcgct actcgcggtc tcgagacttg taatgttcta actttgttcg  240
gtattttgaa ttccgagact aatatgatga attgtattag gagactaatc gtccattgta  300
ttcgataaat ctgttggtta catgttgtgc tatctatatt ctgcgtagta atgtattttt  360
taccctgtg                                                                    369
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<210>       10813

<211>       412

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-023-Q1-E1-B6

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agattgctcc ttatatgatg cgggcaaaca caggattgca tggatgatgtt gccctgggcg 120  
ccgaccaaga aaagagcaaa acattggctc tgtacaaaac agtttcgtac atgcacgact 180  
catgttcggt gaaatgtgtg tgtgagctag actagtacaa tacttcttgt acgtgcactt 240  
gtgtatgatt ggagtgttat gtagtttatt ttgcaccgta ccctttcttt acatttttga 300  
gaattgtccc ctttctttcc tcatatatag tctccagctc caaccaaatt taatttcata 360  
gaagttcaaa gatgaccagc atagaaggctc atagaaaaaa aacatttttt ta 412

<210> 10814

<211> 417

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-C10

<400> 10814

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atgactaatg ttgagtccat ggattatacg cactctcacc ttcccatcat tgctatcctc 120  
ttcgggtaccg tgcattgccc tttctcacat tgagagttgg tgaaaacttc gccggtgcat 180  
ccaaaccccg tgatatgata cactctttca cacataaacc tccttatatc ttcctcaaaa 240  
cagccaccat acctacctat tatggcattt ccatagccat tccgagatat attgccatgc 300  
aactttccac catctcgttt atcatgacac attcatcatt gtcattattgc ttagcatgat 360  
catgtagttg acatagtatt tgtggcaaag ccaccgttca caattctttc atacatg 417

<210> 10815

<211> 411

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-C3

<400> 10815

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gacgtctaaa tttttgcaat aagtatatga gttcttttga ctaatgttga gtccacggat 180  
tatacgcaact tttaaccttc cgcttttgct agcctctaca gtaccgtgca gtgccctttc 240  
acagcttgag agttggtgca aacttcgccc gtgcatccaa aaccctgat acgatacgct 300  
ctatcacaca aaaacctccg tatactctcc tcaaaacagc catcatacct acctattatg 360  
gcatttccat ggccattccg agatatattg ccatgcaact ttccaccatt c 411

<210> 10816  
<211> 278  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-C5

<400> 10816

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accgtcgtgg tctcaacata gcaagaagag cggcacggct ggatccgcga aagagatggc 120  
attttcctct gagcacactc acccttgaca ttctccatt gaaagatctg cggtttacgt 180  
cagctctggc ccattgagg gtgtgcgcta attttctctg gcaaaggctg tagcttccag 240  
agtgtaatg ccaaagcctg agacttgaga gtgttatt 278

<210> 10817  
<211> 370  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-C6

<400> 10817

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ctgtctccgg atggacttgc atatttgctt agctaaagaa gtaaaaggca ggtgagcggc 120  
ctcgtggcgg acatttgcaa ataacatttt cgttttagtga aacttaaaac acaagtgagt 180  
cagggaaaaca agtttatattt attgcaccac agaaaatata atttttacaa aagttttgag 240  
tgggtactaa attttgtaac agatgcagta caaataaatt cctagttttt ttatcatata 300  
ggacaaatta gtaattacta ggagaagagt acaattcaaa gaaggcagag tcaatcagta 360  
gctcgtttcc 370

<210> 10818  
<211> 434  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-D2

<400> 10818

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ctatcaagtg gtatcagatt tccaggttgc tcggtgagat ttacagttt ttcgtacttt 120  
agatcgagtc tgttcttcat acctacagtc cagcaaaaag cgcacaaaaa aaattagggt 180  
tagttcatca tatccgaacc aatctgagcc ttgacataat ctttttaggg tttttgcttt 240  
gttgaatttg cgggttgcac gtcgtgtcaa gttgctggtc ttagagtcta gtcttttaga 300  
gtttcgagtt ctggtcataa gttgtcacgc cgccgcgcga ccatcagcat cgccttgcca 360  
tctaccacca ttgcttatcc gtcaccgcct tgaatccgta accatatacc aacaacgctg 420  
tcatatagca ccac 434

<210> 10819  
<211> 410  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-D6

<400> 10819

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acagggtccc aaaattcaac tgtttgata gtttggtctt tcaaattccag accatacgtg 180  
gaggagaaaa atggtcttcc ggactatctg ccatgtcacg taggtccaac aaaaaaacc 240  
acccacagat gtagccttcc cttttctgtg tggatcccc ctttccctt cggtttccat 300  
catagcggaa catttcacgt tggagccctc tcctttaaaa ctggatgaca cccatctcac 360  
attcgccgtg cgcctctcgc tcctttacac tgtactttcc catgggacgc 410

<210> 10820  
<211> 298  
<212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB31-023-Q1-E1-E2

<400>      10820

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tggtgcaaag tttgcagccg tcgcggcatt gtgcgtccaa tacgaagccg acttctggcc    120

aaacatgagc atcgctgtca aggcgtctta gcccctgctg aatgcgcgag cagcccaccc    180

tggggctgag catgccggac gctaaactcc actccttgta tgatataata gataaggaaa    240

aatgagccat caattgttgt tcttgcgggg cgcgtggcaa gcggtttttg tacatttg    298

<210>      10821

<211>      416

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB31-023-Q1-E1-E3

<400>      10821

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aaaatgggat atttttgttt taacctggca attgctccgc acacggttca actaaatgag    120

tgtgtgtgat ccacatcgga aagcatatgt caatcctatt ggaaccgtcg gtgatacaca    180

gtagatcgca aacgattccc agcgtatta tgtgtgcgta ggttctccgg aaccgtttgt    240

gatatcgtgt tatcgcacac gagaactggg agtaaaccgt ggccaatgca aaatacaatc    300

ccagtcgtat ttattgtagg aaacgtgtgg gtcccaaact aaaagcacac gtcactcttg    360

cggcaaccgt cggtgatacc taacaaatca caaacggtct gcagcacttg tatgtg    416

<210>      10822

<211>      400

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB31-023-Q1-E1-F4

<400>      10822

gccccaaacc ccagacgaaa ccctagcctg cctcccagga gcgccgagtc cctccgcccc    60

caacagatct acgcgcgcga ggttcggttc ggtcttcgga gctcgagaca tggcggagga    120

gaatgccccca gttgagggtg ccgctccggt tgcggccccct accccagttc ttggagagcc 180  
catggacttg atgactgctc tgcagcttgt gatgaagaag tcaagcgctc atgacggcct 240  
tgtcaagggga cttcgtgaag ctgcgaaagc gattgagaag catgctgctc agatctgtgt 300  
gcttgctgag gactgcgacc agcctgatta cgtgaagctg gtgaaggcac tgtgtgctga 360  
gcacaacggt cacttgggtca ctgtgcctag tgccaaaact 400

<210> 10823  
<211> 233  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-G1

<400> 10823

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atgacatctg aaagacggaa tgtgtgctac gttcacggct gagtggatgg caagtgtgga 120  
ttcctccctc ggagtcttag tcgtgggtggg gtggcagatc ttgagttcga tggcgtgtcc 180  
ggggtggtgc ccccgattcg agtcgttcag agacagtgac ctcacctttg gga 233

<210> 10824  
<211> 240  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-H1

<400> 10824

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caatgacaga gctgaaaaag acgaggcgaa cggcggcagc gtggtgtttc tgccacatga 120  
ttttcattgc aaactttctg caacatcacg tgtgttcag aaattccttc cgcaacaact 180  
cctgtgttgc acaaaaagtg aagataaaga agtccgcagc atctttgtgg caaaaattct 240

<210> 10825  
<211> 360  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-H12



<400> 10825

acagtacacc ctaaaatgag tcgtcatact tcaagcataa catccacgac gagtggcttg 60  
cccggcacct gggacaggaa aagccgaaat ctatggcagc cctcacaaca ctcatgacac 120  
gcttttgcac ggaagaagac agctggctag ctgcagtaa caacttacca gagaaccttg 180  
gtaattcgga taccaatgac aaaagtggca cgacacgccg gaataagcaa aaacgccgca 240  
tttacagcga cagcaatgaa gacacggcag tcaatgccgg attcaaaggc taaaaatccg 300  
gtcagcggaa aaagcattca caaagaatac ttatggcctg tcgagtttgg accgaatact 360

<210> 10826

<211> 398

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-H3

<400> 10826

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atctttttac tcctggccct agtggttcgtc tggtagaaaa tcttgagag gaccaactcc 180  
cactccttct cttgctccag gtccccgagg tggtagtggg gcataccca gttggtcctc 240  
tactggtcga agttcttgtt ggtgtgctgc accagaacct tttttgctgc ccgttagccg 300  
gccgttgacc atcacgggca aggtattgcc ggtcttgcgc cacatcgcggt gcatgccgca 360  
ctacgacggt atcttgcaac aagtccacgt gccccttt 398

<210> 10827

<211> 419

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-H4

<400> 10827

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agagcaaaca agaaggtaa gccggaaaca aatatttcat cctcggtcgg acttctcatc 120  
tcgcaatgga agccaagttc tttcggttcc tgaagcttgc tggagttggc ttcaaagcca 180

ggacagagcg cgaaggccgc gagggtgttc tgaaactggg ctacagccat gaggtgcagt 240  
tcaccgctcc acctgccgtc cgcgtcttct gcttcaagcc caacataata tgctgtactg 300  
gcattgacaa gcatagagt caccatttcg ctggagctgt ccgatgcagt aaacctccag 360  
aagtgtacaa ggggaagggc atactgtaca tcgacgaggt cataaagctg aaacccggg 419

<210> 10828

<211> 404

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-A2

<400> 10828

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atcttaagta tctcagaggt ttgcacaagc attgctgctg cttgggtccat accattatct 180  
cacattcttc actgctgtta accactatca tgctctgagt ctgccaacac tattgcttgc 240  
ctcctatcag aggaggtttc tacgggcaaa atgtataatg tgaagaaggc tatcaggagc 300  
atacgaaga cgaactgacat cattatgaaa gcgtccgagg ctgcataatg gaagatgctc 360  
agtctttttg tcatccatcg tcgattgaca cgcctctgtg gatt 404

<210> 10829

<211> 454

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-A3

<400> 10829

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gggggaaaga aaatgctgcc gcggcggttc ttgagctatg cacaacagc aataggttct 180  
gcagcatagt tctccaagag ggcgccgtgc ctctctagt cgcgctgtca cagtcgggaa 240  
cacctcgggc aagagaaaag gcgcaagctc ttctcagcta tttccgcagc caaagacatg 300  
gcaactcggc gaggagatga tgatatgatg ttagcatcat aattttgtag tgtacatgaa 360

gcatttcccg cgaatggcag ttaaatttgt tgactggctg gtgctgtgca ctgtttgttt 420  
 atagtcagat tgagagagat tgtgctcatc atcc 454

<210> 10830  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-024-Q1-E1-A4  
 <400> 10830

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 ccagacataa caaaatttcc atgcgctgcc atggatgctc attcgacagg cgagccagac 180  
 ctttggttac agtacaagaa ttgttgctc tagacaagca tctgctggta aggcagggga 240  
 aaaactgaag agtcagccag gcttacgtgc aaggcgacat caatcaagat aaatagctag 300  
 aggagaaaaa aaaatgcagc agaggtcatc agtgatactc tgccaaaaaa aaatgggttg 360  
 gcttagcatt gccgaaccaa ctgtgcatct caggagatgc ctgccatgcc actgaacaca 420  
 tcatggtcaa tgtgg 435

<210> 10831  
 <211> 400  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-024-Q1-E1-A5  
 <400> 10831

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 actggatcgt aggccttttac cttcacctta aggggcccac cagtataaat cccgtgtcct 180  
 ttgtcccgat taaccctttt aagtttcta attgcgatgg ctccctcact aagtccttcc 240  
 actaggacat ctaacgtgac aattccatga caccatcct cctcctcctt ccacaaccg 300  
 cacacccga ccgctggtgc aacacttcca cacaatcac cgacccttcc accacataag 360  
 cgctcccta aacctatggt ggacacagta tagacaggat 400

<210> 10832  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-A7

<400> 10832

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 aaccgctgct gtagccttgg ttacaggacc ggaacaaaat gaagaagcag atgcacctac 180  
 tcaagtcgaa cccgttgcca tagtgccaga ttccatggag catgctagta cccaagttga 240  
 tcaaagtata gaaacagctg tgcgtctccc agacgaaact tctgttatac ctggtacgga 300  
 accagaagag aagaaagtag aggcattcccc ccaagaggat aatggtggag cagttgccgc 360  
 agagccagaa cctgctggaa cccatgaaaa tgcagaagtt tctactcagc ctagtcctat 420  
 ggagataga 429

<210> 10833  
 <211> 475  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-A8

<400> 10833

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 accatcttta tgcagggcct tgaggggctc aattaccttg tgaagcagac caacatgagc 180  
 gggtcggatt acctcgtgcc gggaaagcag caatcagtgc tctcattcac caagaagctg 240  
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 gacgaatgtg ctatgccgca gaggttacca atcaagagtg gtggattcag gacccatcta 360  
 agcagtcctt ttgctttggg attgctcatg gctgcctcgg ccttgctggt gcttcagcaa 420  
 taatcttgtt gctggtgctc cgattctttg attccttcag gtggttccat cagcg 475

<210> 10834

<211> 419  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-024-Q1-E1-B1  
  
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 cgagaatttc ggccaggcca ctataccaca ccaaggtaac tggtttttga aaagtttgtg 120  
 ttttaaattt ttttgtttag aatttttagaa aaatgtccat gttcacaaat tttgttcata 180  
 aattaaaaaa tattcaggaa tttcagaaac cgctcatgtt ttaaaaaaat tgtttgcatt 240  
 ttcgataaat gtttgaaaaa ttcaacaaaa atgtttgtat ttttagaaat ttgtaaacat 300  
 tcaaaaaaaa tgttcatatt ttaaaattgt ggtcaaaact tgttcagaag ttgaaaaatg 360  
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<210> 10835  
 <211> 472  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-024-Q1-E1-B2  
  
 <400> 10835  
  
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 tacgcctttg agaagttcat gggagtccta aagaaatatg tccgtaagcg cgctaggcca 120  
 gaaggaagca tctccatggg ccatcagaca gaggatgtca tcggggtttg tgttgacttc 180  
 attcctggcc ataagaagat agatctcccg aaatcgcggt atgaggggag actgactgga 240  
 aaaggcacgc ttggaaggga ctcaataata tgtacggacg gatattcttg gtctcaagca 300  
 tgctacacg ttctacagaa ctcgaccatg gtgaccccg atgtccgtga acagaagaac 360  
 agtctgcgct ccatacacc ggagcaatgc gacgactgga ttacatgtga acacatcagg 420  
 actttcagca gttggttggg aacacgtctc agacgtgaca aactgtttg tg 472

<210> 10836  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-024-Q1-E1-B3

<400> 10836

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tctgcttctt atacattatg atctgaaaca gatcaaccaa ctctccttgt gccaaacgcc 120  
caaacataac aaaatttcca tgcgctgcc tggatgctca ttcgacaggc gagccagacc 180  
tttggttaca gtacaagaat tgttgctct aaacaagcat ctgctggtag ggcaggggaa 240  
aaactgaaga gtcagccagg cttacgtgca aggcgacatc aatcaaaata aatagctaga 300  
ggagaaaaaa aaatgcagca gaggtcatca gtgatactct gccaaaaaa aatgggttgg 360  
tttagcattg ccgaaccaac tgtgcatctc aagagatgcc ctgcatgnnc atgaacacat 420  
c 421

<210> 10837  
<211> 448  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-024-Q1-E1-B4

<400> 10837

cgggtccact tccaccaaag cgatatccat catctcatcg aaagacggga cacctttgcc 60  
tctatcaagt ggtatcagat ttccagggtg ctcggtgaga ttttacagtt tttcgtagtt 120  
tagatcgagt cggttcttca tacctacagt ccacgaaaaa gccacacaaa aaaaattagg 180  
gttagttcat catatccgaa ccaatctgag cctttgcata atcttttttag ggttttgctt 240  
tgttgaattt ggggttgcac cgtcgtgtct agttgctggc cttagagtct agtcttttag 300  
agtctcgagt tttggtcata agttgtcacg ccgccgccgc accatcatca tcaccctgc 360  
catctaccac caccgcttat ccgccaacgc ttcgaatccg tatccatata ccaccaccgc 420  
tgtcatatac tancaccgct ggcattca 448

<210> 10838  
<211> 432  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-B7

<400> 10838

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cagcttctag gatgagggtc gcagccaatg acaaagcaga ggccgaaaag attctccaga 120  
ttaaacgagc agagggagaa gccgagtcaa agtacttggc tgggtgtgggc attgcaaggc 180  
agcgtcaggc tatcgtggat ggtctgagag acagcgtcct tgccttctcg gagaacgtcc 240  
ctggcactac tgcgaaagac atcatggaca tggttctggc caccagtat ttcgacacca 300  
tgaaagagat tggggcctca tccaaatctt ctccggtgtt catcccccat ggtcctggag 360  
ccgtcaagga tgtcgcatcg cagattagag atgggctcct ccaggccaat actctctaag 420  
tgagggtcat gg 432

<210> 10839

<211> 451

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-C1

<400> 10839

cgggtccact tcgccacaag acaatctgcc accacctccg ccgattttgc cggaagacca 60  
tcagccgtca cctagacctt ctttggttca gaaaatagat gacaacactg taacttaata 120  
ttacacagaa cattgaggag gactttgata accgaccttc aaaaaaaagc aaaaatttct 180  
gaatcaagtg ttctggagcc atcacctatg tcaacatgta ctccagtttc tgagtgtttt 240  
gaatcgattg tgccaaaatc agataattag atagatccgt gtcctattgc catcacctcc 300  
atccccatct agctcgacat tatctcaaga acatcggtcg agccgtacaa atggcgctcg 360  
cagcggctac accagaggta tttatccctt tgatgaaagc taatcactgc atgtaatccc 420  
ctgttttagt gttgttctgg cctggttata c 451

<210> 10840

<211> 460

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-C2

<400> 10840

gggccgaata tccggggggc gccttttttt tttattattt tttttttttt ttgtatagtt 60  
atcacgagaa gcatatgtca atttcattat ggactttggc aatgatacgt tgatgttttg 120  
actacgacgc gatcctacat ggatcaggga gacacacgcg accaacaagt aatcaaagaa 180  
aataatggcc cagagatagt ttctcgggac agcaacacaa tcttctgcat gcaagcagtg 240  
gatactagca tgggcttcgg atcatcccat ggcatacttc tgcgtccagc tgcgggctgt 300  
cgtctcgtag ttggaccgat ccgtcttgta catgtgggca atctcaggga cgagagggtc 360  
gtccgggtta gggtcggtaa gcagtgcgca gattgaaagc agaaccttag agattgtcaa 420  
agcatgaact cattgctcct tcagaatgac gaggcataatg 460

<210> 10841

<211> 415

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-024-Q1-E1-C3

<400> 10841

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tgaaaacata ccattatctg aggatgcatt gtatgagatg aaagattggg gtagccctga 120  
aggatgagcta caaggcatgg ttttggacat tgaaagatcc atcttccggg acctcattga 180  
cgaggtcata gggtgcgagg ctacagagag gatgcaagct ggacaatgga aactgcgtaa 240  
gcagctgtct ttcagtagta taaactgaat acgactggcg atagtcgttg tttccattan 300  
gaggcttagc cactagtata aatgtaaccc tttgtatttt tctgaaaact gaattatata 360  
gaagaaatat aattattcct ggaaaaaaaa anaancatag aaattgtcaa agcaa 415

<210> 10842

<211> 450

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-024-Q1-E1-C4

<400> 10842



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 attgtccttg gtgtggagaa gctgataaca tcaaagatga tacttgctgg gtcgaaccgg 120  
 agacttcatt cctgacaccg gaactctggc ttggctgtgg ctggggttagc ggcagacggg 180  
 aggcagatag tctcaagagc aaagtcagaa gcagccaact atgaaaagggt atacggagaa 240  
 cccatgcctg taaaggaatt agctgatcgt gttgctagct atgttcattc gtgtacactc 300  
 tactgggtggc tcaggccttt tggctgtgga gttattcttg gaggctatga tanggatggg 360  
 ccacagctct acatgatcga accttcaggc ctctcctata aatattttgg tgctgctctg 420  
 ggtaaaggaa gacaagctgc aaaaacggag 450

<210> 10843  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-024-Q1-E1-C6  
 <400> 10843

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 tcctaataac accagggtat tagataccgg ttcggttgct aagtgttagt aagtcaaaat 120  
 ataagctgtg gaataaacgg agactagcta aagggtgagat gacgatatgt gttggaagtg 180  
 tttccaagggt tgatgtgatc aagcatcgca tgctccctct accatcgaga ttgggggttaa 240  
 acctgtataa ttagtatttg gtgtatgcgt tgagcataga catgattgga ttatgtttat 300  
 cgcaatatgg ttattcatta gaggagaata atggatactc tgtctatttg aataatacct 360  
 tcaatggtct tgcaactaag atgaatgggt tattgaatct cgatcgtagt gatacacatg 420  
 ttcatgcaaa aacatataga tagtaatgat actaccacat 460

<210> 10844  
 <211> 371  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-024-Q1-E1-D1  
 <400> 10844

cgggtccgaga atccggggcc acacgaatcg tcgaagtacc tggatctgga tttggccagg 60

ttcctggcac atggcacttc aggtgcacga tccctccgca ggaggagaag atccccggcaa 120  
tcatctcccg cttcacggtg ttccatgaga cgttcatggc agagtaccgt gactaaactg 180  
gtgtaacatg tgtgggatta catgcaagcc tcatggattt tccctaggcg tttttgcccg 240  
cgttgacagc agtatcctgt agatgagaca aaataaagca aatccatggc ttgtgtgtgt 300  
gatactatat cagattacca gtctgatgcc tttgatggca aattggcaac tgagaatttt 360  
tatttccacc t 371

<210> 10845  
<211> 456  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-D2

<400> 10845

cgggtccaca ctgcaccata aaacaaagca tctctactct aacattgagt cctctcgtga 60  
ttcagtggaa caccattata agttcacaac accagaatga atcatgtcaa aaggaagcac 120  
catgcaagct cataatacaa tacaattaac atttaacacc ttgcaataaa tatttgttct 180  
gttgacagtc acaccatgct gataataaaa caacttttga tggacaaacc gcaagaggaa 240  
aaatatggtg tctttgcatt ttgtgccaag aagagacata agagaaaaaa aaggaagaac 300  
aaacagagca aaaaggagaa gacacaatta tgtggcagac aggtacagat acatctcaca 360  
tgttcttggc ttcttctttc ttatgtatat aacaagatga gacttgggac tgactgactg 420  
gaaaagagaa gatcacaac aaaatgactt cactga 456

<210> 10846  
<211> 460  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-024-Q1-E1-D3

<400> 10846

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aggtcgccgg gggcaaggcc ggcaacctcg gggactccgt caccgtcgcc cgcgacaaga 120  
gcaaggtcac cgtcacctcc gacggggcct tctccaagag gtacttgaag tacttgacga 180

agaagtacct gaagaagcac aacgtgcgtg actggcttcg ggtgatttca tccaacaagg 240  
accgcagcgt ctacgagctc cggctacttca acattgctga gaacgagggc gaggaggagg 300  
actagatgtg cactgccttg tttctgtgcc gtgtgaaact ttgaacttgt tggagcactt 360  
ctgcagtaga gttttgatgt ntatgtnttc acccctgttt tgaattgtgg ccaggacgcc 420  
atgtgatgga tgcttagata accaagctga agaattgtcc 460

<210> 10847  
<211> 433  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-024-Q1-E1-D4

<400> 10847  
cgggtccact ccgaggaact cactgtggag gagcgcaacc tcctctctgt tgcatacaag 60  
aatgtgattg gagcccgccg tgccctcatgg cgcacatct cctccattga acagaaggag 120  
gagagccgtg gcaacgagga ccgggtcaca ctcatcaagg aataccgtgg caagatcgaa 180  
actgagctta gcaagatctg tgatggcatc ctcaagctgc tcgaaacca ccttggtccc 240  
tcttccactg cccctgagtc caaggtcttt tatcttaaga tgaaggggtga ctactacagg 300  
tatcttgccg aattcaagag tgggcctgag atgaaggatg ctgctgagaa atacatgggtg 360  
gcatacaagg ctgctcaaga tattgctttg gctganctgg ctccaactca tccgattang 420  
cttgggctgg cac 433

<210> 10848  
<211> 457  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-D6

<400> 10848  
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acgggacacc tttgcctcta tcaagtggta tcagatttcc aggttgctcg gtgagatttt 120  
acagtttttc gtagtttaga tcgagtctgt tcttcatacc tacagtccac gagaaaagcc 180

acaaaaaaat tagggttagt tcatcatatc cgaaccaatc tgagcctttg cataatcggt 240  
 ttaggggtttt gctttgttga atttgcggtt gcatcgctgt gtctacttgc tgggtcttaga 300  
 gtctagtctt ttagagtttc gagttctggt cataagttgt cacgcccgcg ccggaccatc 360  
 atcatcgctc ctgccatcta ccaccatcgc accgaatccg tatccatata gtagcaacaa 420  
 tccgtgtcga tataaccacca ccgattcata tccatat 457

<210> 10849  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-024-Q1-E1-E2  
 <400> 10849

gcggtccac actattcacg aaagtgagtc ttatgacctt cttggggaca tctccttggc 60  
 ctctcccagt acccctttta ccaacaatca gggtgaaaaa tcctcctccg tctcaagcgg 120  
 acatggcgtg gagcactttt tgaatttgcg aacacttttt gaattcatgg acatattttc 180  
 aattcacaaa catttgaatt tgcaaagatc ttttgaaatt cacaataatt ttctagattc 240  
 acaaacaatt tttgagctca agaacatttt tttgaactcg tgaacatttt tataatctgc 300  
 acctttttta atttgtaaac aattatagtt ttagctcaag aacattttta taatctgcac 360  
 cattttaaat ttgtaaacaa atacatttgt tagctcaaga acattttttg aattcgtgaa 420  
 catg 424

<210> 10850  
 <211> 462  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-024-Q1-E1-E3  
 <400> 10850

cggtccact gtccggacgc taaagcctta gcggttttca gccataatgt ccgagacgaa 60  
 tggctcgcca gacacctcgg ccaagaaaat ccaagaacaa tggccgcact aacaagactc 120  
 atgacctgct tttgcgcagg agaagacagc tggttggcaa gatgcagcac cagtgaacca 180  
 agtacatccg aagctagggg tggaaacgga aaaccacgat gcaataagga ccgtcaccgg 240

actaaagaaa aaaatccgaa gagcacggca gtcaacgccg gattcaaaaag ctcacgacat 300  
aatcagaaaa agccgcctc caagataaca gggacggcct atccaaccta aacaaaatct 360  
tggataggat atgtcaaata cacaacactc ctggaaagcc tgctaaccat acccacagag 420  
attgttgggt tttcaaaca tccggcagac tcaacgccga ac 462

<210> 10851  
<211> 426  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-024-Q1-E1-E4  
<400> 10851

ggtccaagat acccgggtcc acagttgtcc acttacacaa gcacaccac caacctcaa 60  
aggctgctac tgagctcaat gtccattgcc aatttgccat gttgtcagat agcttttgaa 120  
aggtgtttgt caaatcttaa gtatctcaga ggtttgcaca agcattgctg ctgcttggtc 180  
catacatta gctcacattc ttcactgctg ttaaccaata tcttgtcctg ggtctgcaa 240  
gacgattgct tgcctcctag cggaggaggt ttctacgggc aaaatgaaga aggtgaagaa 300  
ggctatcaag agcataggca agaagactga cgtcattagg aaggcgccg cggtgctta 360  
atggaggatg ctcagtcttt ttgtcatcca tcttcgattg actcgctct gtggatttgg 420  
tggcgt 462

<210> 10852  
<211> 471  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-024-Q1-E1-E7  
<400> 10852

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ggatattgtt tcgtccctga agatgggacg ttccctaccg aaaaccatca tgctttttgt 120  
gagaagctcc ggtttgtgag aagcatatac ccaaacctgc cccaaatggg acaaaaattt 180  
taccacggca tgttgatgcc gctccatgat agcatgcaa gtttcatgaa tttcagaata 240  
gttttggatt tactagaatt taaaaaccag gcattctaat gttatgccgg caatcaacgg 300

tgctatgggtg ttgaaattc attcacatth cttgcatggg acataagcat gcacccaagg 360  
acacagatta tattttttcaa ccaattttata tgcagtggcg catgcgcatg tagttcaaatt 420  
ttgaattatt cacataaatg cattgaaaac tcagttaatg cataaaaatg t 471

<210> 10853  
<211> 458  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-024-Q1-E1-F3  
<400> 10853

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tctctacttg gggaaatcca tcaacggcgt ctactgtgca ctaatcttta attcagagga 120  
acggctacgg atttggctac ttaatgatga tgaggtacgc ggtcaaacaa aatgggtgct 180  
caagaatgac gtgagcattc aaccactcgt gggaataaca catcaacact ttggccttca 240  
aaacaatgga ctttggactt tgcaaaacac ttcctacgaa ccaatggcgg agcagaaatt 300  
tgaatgggat cctgacagcg acatcaccct tgaagctgag gctaaggctc caatagatca 360  
ccttcatgat gatattcgta ccctaagatt tcctccttac aaggagattc tcttcttatg 420  
gacaaattgc aaaagagtag tagcttacca tttgaaca 458

<210> 10854  
<211> 449  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-024-Q1-E1-F4  
<400> 10854

cggtgccacc cggtcgctcg atccaaggcc gcgcacacgt ctgcaggcag caagaagatc 60  
gtgggcgtgt tctaccaggc tggcgagtac gccgacaaga accccaactt cgtcggctgc 120  
gttgagggcg ccctcgcat acgcgactgg ctcgagtcca aggggcatca ctacattgtc 180  
accgacgaca aggagggctt gaacagcgag ctggagaagc acattgaaga catgcatgtt 240  
ctgataacca cccattcca cccagcctat gttactgccg agaggatcaa gaacgcaaag 300  
aacctcgagc tgcttctcac agctgggatt ggctcggacc atattgattt gccagctgct 360

gctgctgcaa gcatgacagt ggctgaggtt actggaagta acactgtctc tgtggcagaa 420  
gatgagctca tgcgcatctt gattctgct 449

<210> 10855  
<211> 459  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-024-Q1-E1-F5

<400> 10855

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ccactcctaa ccatgttcgc tcgattgaca agagcagggc ggaagattgg atcgagggcg 120  
cccgcattggc ctcgccgccg ctgtcacctg gattcgctag ccgcctcctt gattcacacc 180  
cgtcgccgcc gcgagtaagc tccaccgttg ctgccaggaa tctcgtcccc ggcaaggtaa 240  
tttcctctga atccctgctc tcctaaactc ccttattctg ctgccctact tgctgcgtgt 300  
gtgctgtgtg ctgtgtgctg ttagccatga tctccgcgag aaagctcaag tcnctcgact 360  
tttacaggta ccatccgctt cccttcgat cttcagatct ccatatgtgg tgaatgtgg 420  
gttttggttt ttcgtcggat tactatctgt attcgggga 459

<210> 10856  
<211> 460  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-G1

<400> 10856

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ccaggctcgc cgaaacaggc acccgacta cgagttcttc ctgtcccggc agcaacggta 120  
gatgactcga ggcttttgcg cgaaccatgt ttgagaacgc tgacggatgc ttgttcccct 180  
gtaaccagaa ccaaccatgc cggctgagcg gcgccgtctg cctgtgttac caccctgtat 240  
atatttgaga tagaggcaca tgtggaggtg ctgctcaatt gaaagtgaac ccagaccaga 300  
gatgttggtt actaagtggg gttgatatca taggtgcaac cccttttaaa tctaattagc 360  
ttgctcacc atgtgatgta catatatgcc tgtaactcaa ctcagcccag ccctgtatct 420

aactgttttag ctgcatatta taatatagat ctgattaaca

460

<210> 10857

<211> 354

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-G4

<400> 10857

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ctctcagctc acaacctctt cgatcctctc cgctctggcg gcgtccacac ctcaccatgc 180

agaaatcttg gttctccgca ccggcaagca atgggtcctg atacggatca tagcgccgcc 240

gcatcgctct ccgaagcctt tgacccccac ggtggccaat gagcagtcgc cgtaccagca 300

gttgtgtatc ttctcagagg cggcagtcac ggatgtggag tactggcagc acat 354

<210> 10858

<211> 427

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-G7

<400> 10858

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gattttctcca caaagagcac accatggcaa ttctgctgaa aacaacatct atccgcgtta 120

gttccattca aatcatgcaa actagagtcc aaaacaagag aaaaagtgtt tggaaaagta 180

gatacgatgg agacatatca actcccccaa gcttaacaca ttgcttgtcc tcaaacaatt 240

cagttgacaa actgaaagtg acaaagaaaa actttttacaa actctatttg atcttgttgt 300

tgcaaatatg tcgaaccaat gttcatgttt tcagcaagga ttatgaacta accatattca 360

caataacact taggtctcac atttactcat atcaatggca taactaacta gcgagcaata 420

ataagat 427

<210> 10859

<211> 456



<212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-024-Q1-E1-G8  
 <400> 10859

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 tatattgctg gaggagccac gcagaactct atcagggttg cccaatggat gcttcaaact 180  
 cctggtgcaa caagttacat gggttgcatt ggaaaggaca agtatggtga ggagatgaag 240  
 agcgccgcta aagctgcagg agttactgct cattactatg aggatgaggc tgctcctaca 300  
 ggcacatgtg ctgtctgtgt tgttggtggc gaaaggteat tgattgcaaa cttatctgct 360  
 gcgaactgct acanacttga gcactctaaag atgctagaga actgggcact agnttgagaa 420  
 agcganatac atcctacatt gctggctttt tcctac 456

<210> 10860  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-024-Q1-E1-H2  
 <400> 10860

cgggtccacg ctttcttttc ttgttggtacc ggtgtggcat cgccttttga caagcccttt 60  
 gtctcgattc tcccttttga gctcagctcc accgaccaga tgatgatggc tgacaaagag 120  
 ctcgatgtcc atggctcgcc gggttccgct ggctccacta acagctgtgt gcgggggctt 180  
 gcacaggata cccagcaagt gtttaggatt ccacacaggg cagttcttga catgctccta 240  
 gcacaccttg gcctatcacc ggctcagtat gaacatgttg ttcattgagga cgacaagatc 300  
 catgtgaccg tctttttcaa cacctctacg ttgggtcctg gaggaccaat cagtatgaaa 360  
 gtgtcatgtc gtcattccta ctgggtctatt ttatgcctaa gacatgcaaa gttgtggatc 420  
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<210> 10861  
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<212> DNA  
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 <223> Clone ID: LIB31-024-Q1-E1-H3  
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 gaaactgttg tggcacatct tactaagttg aataacatag ccaccctttt tactcatgat 120  
 gagaaaactc gctattactt tattctcaaa ttatttcctt cctcattaaa gggatgatgt 180  
 aaagcttggg acaatactct tgctcctagt tgtgtgcgta gtccccagga tatgatttat 240  
 tacttctctg aaaaatattt ccctactcat aagaaacaag ctgccttgca ggaaatattt 300  
 aactttgtgc aaattaaaga agagagtctc ccacaagctt gggggagggt ttgccaatta 360  
 cttaatgcct tgctagatca tcatcttaag aaaaatgaaa tacttgatat cttctataat 420  
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 <211> 378  
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 <213> Triticum aestivum  
 <223> Clone ID: LIB31-024-Q1-E1-H7  
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 cgccggacgc ctcatggggg tcttcccaa cgaatccgag gtcgcgcgct acaagtacaa 120  
 gctgtagtgg tagaaggcat catcatttct ccccgtttct ctaccgcaag tggtacttct 180  
 ttgcttttat ctttctctaa tctcgtgtga gcaatgtgtg gtcttggtgt aataaatggg 240  
 gtgccttgct gcacagtagt gaggaattca tgccaaaaaa aagaaaagaa ataataaaaa 300  
 aaaagcggcg gcccaaaagg ttccagccta acttatgctg gaaggcaagt taaaaccctt 360  
 ccaaaatggc tacctaata 378

<210> 10863  
 <211> 310  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-025-Q1-E1-A2

<400> 10863

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ttgcctgcta gggcaataga ctagcaggaa tggttgtttt catacgttgt gaggatatga 120  
gtagaacatg gagagtcttg cagtgtttct agacgtcttt gtcccttcaa aagcggctctt 180  
ttccttggcg acctctggca gatgcatgcg tggtagcggc attcggccag gttttgggga 240  
cccatggtct ccagtgtatt tttttaatga cgatgggtcca tgacgttgga attttgagct 300  
acggtggccc 310

<210> 10864

<211> 267

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-A3

<400> 10864

ggtcgacgat cgactctaag ggtacctgac tcgcgatcgt ggcttaggga aacgtaataa 60  
taacactgtc acgttcatgg tcatgactag tgttcctatc agtggtgtca ggaccatggg 120  
catcgcagcg tatgtgactc acattatgga gtatcgcttg tgtgtgttcg ttaatagctg 180  
gtgcatgttg aaccacggca cttgtgtgct atctaacggg acatgtaggt tcatcgaagt 240  
tgatggcagc atggctgagc tcatcag 267

<210> 10865

<211> 399

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-A7

<400> 10865

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acgtttcggg gactatacct ccaacacttg ggaagttgaa gtcccttggt ttcttgccgc 120  
tcaacggcaa tcgtttgact ggaccaattc caagggagct ggccggaata tccagcctca 180  
aagttgttga tgtttctggt aataatctgt gtggaacaat tcccacgact ggaccatttg 240  
agcacattcc tctcagcaac ttcgagagga acccacgctt ggaaggacca gaactacaag 300

gcctggctgt atatgaaacc aactgctaaa cggccacggg aaggtggaaa atgcttacga 360  
agtaacgggc gtacaagggt taccggagat cggggtgat 399

<210> 10866  
<211> 434  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-A9

<400> 10866

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aagcgctcga atctaagttc gagggcgccg attacaagat gtatattata gagcagttcc 120  
atgattacaa gatgggtgag aaccgtcctg tactggagca ggctcatgag ataatatgca 180  
ttgttaagga gcttgagctt ctgaagtgcg agttacgggg caagtttgct gcgggctgca 240  
taatcgctaa gttccccaat tctcggagga actttgccac cactctgaaa catcagaggc 300  
gtgaattctt cgtggaggat gtcattggcc atctgagtgt tgggcagaat tcgagggcaa 360  
aggactcgca cggaaaatgg gccgaaagga cttctgttgc caacatgggg aagcacggga 420  
acttcaactc ccac 434

<210> 10867  
<211> 346  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B10

<400> 10867

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cacaggaaga gcatcaaagg ccagcccaa gacccaaacg caagcctcta cttccgtctc 120  
ggcttgcagg cctagaatgg gcccttggtc ttgtaacgat ataaacagag tgttcccctt 180  
cgggagtagg cggcggcaga tggctggtgg ctggcaagga tagcgtgtgc gtgtgtttct 240  
ctctcctccc tctcgatccc cctttcccca tgggtttgta gctcgaattt gtaatcatgg 300  
agtaatggag aggtagccct gacagaaaga ctatgggatt caacac 346

<210> 10868  
<211> 427  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B11

<400> 10868

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ggatgtgtac aagctggctg agacaattaa atcatcttca tgttgtaaga tcactcgtga 120  
acctggctcct gtcaagggag ggtccactgt gattgctttt gcaccagacc cagatgggta 180  
catgttcgag cttatccaga ggggtccgac gcctgagcct ctctgtcaag ttatgcttcg 240  
tgttggtgac cttgatcggg ctatcatgtt ctacgagaag gcccttgagg tgaagcttct 300  
gaggaagaag gatgtgcctc agtacaagta cactattgcc atgatgggct atgctgagga 360  
ggataagacc actgttcttg agttgacata caactatggt gtcacagaat ataacagggg 420  
caatgca 427

<210> 10869  
<211> 419  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B12

<400> 10869

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tgctctccct tcagtgacca ccattgagca tgtgaagccc atatttgatg agcatgggta 120  
tgtctgcaag tacgagatgt catggcacac tgggacgcac agaggtcata atccgccatc 180  
catcttcgct cttgccgagc tgaggggtag actctattgg aaggcgtttg tatttcctga 240  
tacatcctca ggaagctaca ttgtggtgct catccacaat ccacaatgtc agctctcatt 300  
tgcaaaggca gggggtgata agtggacctg gctaccgcct gattatctct atgatgactg 360  
cacttataaa gatggcatat tgtatacagt gaatgttaaa ggagaattcc acgcattcg 419

<210> 10870  
<211> 355  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B4

<400> 10870

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gaggactacg tctagcccct caagctctat ctcaagctct accgggagat ggaggggtgac 120  
acgtcaaagg gttcgaatc tgagcaggct gcaaagaaag tgggtgcact gaatgggcag 180  
cctggatcat cgttcaacgg catgtaaggt ggaggatgat actgatcggc gtatgacaaa 240  
catacacata caattcgttg gcagtgtgat cctagcagta ctgcgccttt gtggccgggg 300  
aaagtcccca gcactctgct tagttctgtg catgcgggat acttgaaata ccatg 355

<210> 10871

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B5

<400> 10871

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cggaacatta cttaaaacct tgcaaacaat gtttcaaatt tagaactt taattaagtt 120  
aggaatattt tttaacacac acgaacgaat ttaaaaattc cagtcattctt ttgaagctat 180  
gaagaaattt tcaacttcct gaacattttt tcgtaaatgt gaacattttt ggaatttgta 240  
aacaaaactc gaaaagcgga acttagtttg aaattatata caatttgttt aaaacaagaa 300  
catttttaaa attatcaata catttttgaa aacgtgaaca ttttttaaaa ttccagaaca 360  
tgatttgaaa acatgaacat tttttgaatt ggtgaacaaa ttttgaaaac agggaaca 420  
tcctagattc ataacaaaat 440

<210> 10872

<211> 302

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B6

<400> 10872

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gaggatttgg gagccggcca tgctgaagca gcacaagtgc aatgattagg tttatacaag 120  
gctcctcaca acgaggaaga accaagctct cttagtcctg accctcctgg aacggagcct 180  
gagcaagttg agtttgcacc tgcaacgaaa caggaagatt ctgaaggtga taggagggga 240  
aaaatgcggg gcgaagagag gaaaagggac aggagataag aggcggaggc gtggaaggca 300  
ct 302

<210> 10873  
<211> 439  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B8

<400> 10873

caggtctaga actcacgggt cgacggttga cttgaaactg gttcataaaa tcacccccta 60  
gtggtgaatt aatggcagac atgcaactga ggtaagacaa ctaattgggt caagttgcgg 120  
gttgacgatg gacttgcaac taatgcaaaa aaagagtcgg gacctattgc gatgacaaat 180  
caaacatcaa gtcaagttag gaatcgaggg tcaacttgca gctaaagaaa aaaaagagtt 240  
ggacctagtt acaagttaat agtggacttg gaggaaaaaa gggtcgatca taattgcaag 300  
ttgagggtaa aattgtaact aaagcaaata gaaagaagca caaaaaaggt taaacaaaac 360  
atcgactcta atgaaaaata agacgaaaat gaaaagagga gaatggggag aggcaaagca 420  
gccaaagaat ggaagtgat 439

<210> 10874  
<211> 322  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B9

<400> 10874

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gatttccagg ttgctcgggt agattttaca gtttttcgta gtttagatcg agtctgttct 120  
tcatacctac agtccacgaa gaaagccaca aaaaaaatta gggttagttc atcatatccg 180  
aaccaatctg agcctttgca taatcttttt agggttttgc tttgttgaat ttgcggttgc 240

atcgtcgtgt ctagttgcag gtcttagagt ctagtctttt agagtttcga gttctgggtca 300  
taagttgtca cgccggggcc gc 322

<210> 10875  
<211> 385  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB31-025-Q1-E1-C1  
  
<400> 10875

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ggtgctcgtg cgcattgcagt ccggcaagtg ctatctgttc ccctgcagtc cgtcaaccat 120  
gccatgcaac tcagagacac ttcccatgcg gttcagagct cgtgcgtgtg taatctagcc 180  
agtgtctgtg catgtacagt ccagcgagca tccgtgcaca gcagcgctc tgccacaaca 240  
ttcagtagag gattccccta gtttggaaaa tgctaacttt tggattctaa gacgaattag 300  
gtcncttaat tatgatgata tgttgctaga ccaattagtg tccatgcaca acagcttcta 360  
agaccaattt tgaattaact tttgg 385

<210> 10876  
<211> 421  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-025-Q1-E1-C11  
  
<400> 10876

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ttgctgatga cttcagatct gaacctacgg atatatgtgc ggacttgaaa atgaaccgcc 120  
agatgcttaa accatattat gaccagctgg gatgcaagtc cgtgtcaaca ggtgctttta 180  
aaccagtttt tatgacactt ccagcacccc tcaagttccc acaacaagtc acaaggagaa 240  
ggcggcgaaa ataaccatct tagttattgg tttccatttg atatggttgt gataggaaag 300  
gtatgcattg ccaccgtoga acctatgtgc cctcagctca gtttcaccaa tgtagtggag 360  
aaaatgatga aggtggttgt tctgtctttg ttttctattg tcacttggga attgctacga 420



<210> 10877  
 <211> 359  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-C2

<400> 10877

gggtcgacgc ctcacacaag cgtgaaacga tcttgggcag cgctggggac cggcaagtca 60  
 cgagttctta cctcgaaggc gtcattctgg gaaatcaaga taaggataac ttcctcgtgc 120  
 cttactttcc cgagtaggtc atccccctcaa cggccccgta acatatgaag tcttagaatg 180  
 cgatcgtttg tcttttaaca ttccgtgttt tctggagtga aacacgttgc acgctcatcc 240  
 tcctaagccg agatattcca tggccacaga tttcaacacg gatcgtgagt ccaacttaga 300  
 cgacacagat gtcaagaaag ttcttgacga tgttcgccac ggctaagtcg aatctggag 359

<210> 10878  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-C3

<400> 10878

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 aatatcaaac gaatcccaaa ttcacatgac tactaatagc aagacttctc ccatgtcctc 120  
 aggaacaaac gtaactactc acaaagcata ttcatgttca taatcagagg ggtattaata 180  
 tgcatataag atctgaacat atgatcttcc accaaataaa cgggcaagca tcaactacaa 240  
 ggagtaatca acactactag caacctatag gtaccaatcc tagacttaga gacaaaaatt 300  
 ggatacagga gatgaactag ggtttgagag gagatagtcg tggatgaagat gttgatggag 360  
 attggccccc tcctgatgag aggagcgttg gtgatgacga ctgggatgat tccccctcc 420

<210> 10879  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-D1

<400> 10879

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ggcgaccgtg gtgtcttcgc cagggcctcc ggtgactacg ccatcgtcat cagccacaac 180  
cccgacaacg gcacctcaag gatcaagctc ccctctggtg ccaagaagat tgtcccaagc 240  
agctgccgtg ccatgattgg tcaggttgct ggtgggtggca ggactgagaa gccaatgctc 300  
aaggctggta acgcctacca caagtaccgt gtgaagagga actcctggcc taagggtcgt 360  
ggtgtggcca tgaaccctgt ggagcatccc cacgga 396

<210> 10880

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-D10

<400> 10880

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atgctagtgt gaaacaaatg tgatctatct cacaggcatg ccgtgagcta tgaggaaggt 180  
aggaagtctg caaatgagca tggctctgatc tttgtggagg catatgcaaa agctgcacaa 240  
aatgttgagg aggtgacaga ctgatcgatc cttgttgcat ctctgtgaaa ttaacgcctc 300  
tctaggcatt ttctcatgcc atttcaaagc cagggttttg ttcagactgc tggagtcac 360  
tctactccca atgtctgagt tgattgaatt gtacgggtta atttcgtgca aaaa 414

<210> 10881

<211> 410

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-D12

<400> 10881

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catataccat gtgatgattg ttgctactaa tgatgtatcc acatcgtaat cctgagccag 120  
catgtgtctc gggaaaacta gtttatgaac tgtgggaatt cgtggatgca tttctagtca 180  
tagtaaacag tccttgctgg cacgacgttg ttctggtcag gtcagatcct ctgcctttcc 240  
tttgectgct ttgctgggcc gacagaattg accgtcccgga gtatgtgcat gttgttcttt 300  
agtcggtttg ttccgggtatt gcctggaaac aggaagatct catgtgttaa taatcatccc 360  
ctgtctatga tctgtccatg cgcgtcaaga ttccgaaata acgateccgc 410

<210> 10882  
<211> 123  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-D3

<400> 10882

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gctgcgccac gtgtttctc tagggaatgg tgatttccca cgtgggacca cccagttgt 120  
ctg 123

<210> 10883  
<211> 435  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-D4

<400> 10883

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tagtgcagtg cacagaccgt tatcgtcagc gtcctggatc atcaacctga cctcgtcgag 180  
cgtaaagtgc tcgccggcct cgatggccag ccgctggatg tccatgtccg gcctcgatgg 240  
cctcatctgc ccgaaagatg acatgggtgag taacccccaa tctgggacac ctcagacgat 300  
gacagaagag agaggaggag tcatgagact gtgatagcct ggttttttgc cttcgctcgt 360  
tttttcggac tttcttttgc atcgactttg gattttgagt tttgagtcaa gtcaaattgga 420  
cttgaacact tgggc 435

<210> 10884  
<211> 444  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-D6

<400> 10884

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tcaaaaacaa tcaacaacta atgggttcacg ttaaacact gatttcacgc gaacataagc 180  
aatagcaatt gattagcact ccactataa ataaatataa atctctgtaa ttagtttatt 240  
gaagcaaagt taatgagaga aaaagttatc actcaaatgt gttatctcca ccctttgtcg 300  
aaagtttgat agaatctgag tccagtcgtc gcaattaggc ttgactaacc ccctacagtt 360  
ttctggccaa aaaatgggta agcaagcttt tgggcctggg ttatgaccgg ctaagttggg 420  
tttggtagta tgggtcgacca tgat 444

<210> 10885  
<211> 434  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-D8

<400> 10885

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tgatggacca aacagcaaag ctaacttggc tgcgaggcaa cgcttacggg ggacagatga 180  
gttgcatgaa caatttgtgg aggctgttac tcaacttggc ggtcctgata gagcaactcc 240  
taaaggagtt ttgagaatta tgggtacacc aggattaaca atataccatg tgaaaagtca 300  
cctacagaaa tacaggctag caaagtacat tcccgactct tcagctgatg gtaacaaggc 360  
tgataacaaa gatccagggg attcactagc aggacttgat ggatcctctg gaatgcagat 420  
atctgaagcc ctga 434

<210> 10886

<211> 396  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-025-Q1-E1-D9  
  
 <400> 10886  
  
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 atggggggcac cgcattgttct ttcggtgtgt catcatcatc cgtcgggtgcg tcattattat 180  
 attatgacga gagtcctgca tggactcaac aattatagtg attatgagaa catcatgtgt 240  
 gatgttcacg acatttggcc tttcacaacc atgcacattt atcccttcac catgtttact 300  
 ccagcattca tatcccaaca cgaatctcct cgtgacaaaa tgtgtctgga tctctgtagt 360  
 gcttttcata ctttgcaa atcttgacactc caaaca 396

<210> 10887  
 <211> 163  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-025-Q1-E1-E1  
  
 <400> 10887  
  
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 tcattcatgt tcacatgtga ctccatttca agaaatatcc agtggccgca ttatgccaga 120  
 acgcactatc atcattctac atagcgaagt gggatatccgt cgc 163

<210> 10888  
 <211> 352  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-025-Q1-E1-E10  
  
 <400> 10888  
  
 gggtagactt cgttgtccat aacaatgcac acattgtttt cacaactaat tgcaacgcac 60  
 tcgtagcaaa tatattagag tgtgacgcgc ccaccttctt gttttgtaca cggaccacta 120  
 tggttgtttg atatgtgttt cacgtgcgct agattcgcac tcaattttga tcttcttgtt 180

gattatgatt gtgtgttttc cttttgttga tatggcttta ctgtgtgcaa gggatattgg 240  
 tgctcagggg ggagcgagct attggttggt cactatgata ttgttacgca ccacagtgtt 300  
 agcgtacatc ggtgtttcac gttagcctcg tacggatgcc acgattatct ac 352

<210> 10889  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-E12

<400> 10889

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 cgtcaagggtg tgcataatgag ttcttgtaag gtgcgttcaa gaattcgggtg gtgtgagtcg 180  
 tctgctgcac ttgagatgag tcaactgacgg aagagaattg agagtggaga gcggatggaa 240  
 aaggaaattg tgccttgcat ttccgttcgt gatcaagaag ttccaacgag ttcatcatat 300  
 ggtaaagggtg agttgcacgt atatggcgag ttgtgttgct cctagacagg aggtgtcgtt 360  
 cgataagata tgggatcgac ggcaacaaga aaatgtgaag atgttggcgg gtg 413

<210> 10890  
 <211> 270  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-E5

<400> 10890

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 gggtaaaata gggacagttc atgtaaacgg atgggcactg gacatggatc tgtttattta 180  
 ggtcacccta tcaactttgta agaaaactca ttattgcgaa agtattactg aaagtgcac 240  
 tgtgcgtcta gcagttgcat cgtcctgtcc 270

<210> 10891  
 <211> 411  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-025-Q1-E1-E9

<400>       10891

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cgaatcctcc tatgtcccaa cggggtcggg cggggtaatc tgtgtcggca ctaggatgaa   120  
aggggcgcgt gcttctctggc acggcagggg aaacaactgc ttcacatgt ctgaacctcc   180  
ctgcgtcgcc attgccgcct ccctctctcg ctgtcgggtg cgctgcaact tccggcgacg   240  
ttctccgcct tgcaagacag aaccggcgaa gtgacgccga cggacgaggt ggatctcgtc   300  
tccgtcgcgg cggtcgggga caagctagac gacatctcgg gcagtggacc aggaccggtg   360  
gcgaggatgg ggaacaacgg tgaaggatgg ccaatgctcg gccacgggaa a           411

<210>       10892

<211>       348

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-025-Q1-E1-F12

<400>       10892

actcgcggt agacaggaga cgctacatag cgtctgagca tctgccctcc ccgtcgaggt   60  
cgctcctcac catcgcaggc acggctctgt cggggccacg acgacgagag gagcagcaga   120  
ggataacttt tccccacgga tccttctcgt cttccacgtg attcgagtct cctctctcca   180  
tcaggttttg aaggcggttt tgtgtagaac agccacggag cagaaacaac gaacatgctg   240  
cttcagcaac agcgtaatga tcctgatgat actcttatca ttttggtaac gtaatgtgtg   300  
ttctgtcaat gtcgctccg gatgctagct agacctactg ggtagcat           348

<210>       10893

<211>       366

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-025-Q1-E1-F2

<400>       10893

gtctagaact cgcgggtcga cgccatgggt tacacgggtg ccgccaatca cgcctccaag   60

gacgagtagg ctctggtctg atctgatctg atcggcggcc ctctggtgt cgatcttggt 120  
 ttcggtgtgt gtatcgctag aaagaaactt taatacgtag tagtcggcta ggctccatcg 180  
 tcgttggtgt atcagcagcg aagatgcgaa gtcgcaatag aatgcttgct gtataactta 240  
 tgcatttgct aaatttgcta cgccatgcat gtctgccaca cgctatttgg atgtggctaa 300  
 agaactcctg aataattctg tacataatth gtaatgcttc catcagaatg gtgttccgtc 360  
 gcaaaa 366

<210> 10894  
 <211> 346  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-F4

<400> 10894

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 aagcaagttc agggagggcg aatgagttga gtcctaatat tagaacatcg aagggtagta 120  
 gaacgcctct gccaaacaagg taagcttgag caatggaacg tggctctgact gtagccagta 180  
 caggcgctcg tgctgcttcc ttcaccagt agagaagagg ataagggtca aactggagat 240  
 ccgtcagtgcc ccacaaaaaa tcgagatctg cgccgagttt cacatccagc tcaattacct 300  
 agcatgggtc gtggttcctc aacaaaacat caggcaacag agatat 346

<210> 10895  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-F8

<400> 10895

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 gcccgttcaa gaacaatcac acggaggatg gcggatccgt gttcttcgga gaggacacga 120  
 acaacgggag ccagcagttg gaggggacgg agaccgagac cgaggactac accaagttca 180  
 cgggtgctgaa gctgaagcag gagctgacca agcagggggtt cggcgcccag ctgctgcagc 240  
 tgaagaacct caacaagaag gacatcgctg ccttgatga gaagcacgtc gttggcggcg 300



cttgactgcc tcttcctcaa caatatgtaa cgcattcatt taactcgtgt gctaattcta 360  
gatttcgtgc agcgttgtgt gctggtgaca cgttttaggt cagattgtga aacagcatat 420  
gt 422

<210> 10896  
<211> 358  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-F9

<400> 10896

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gcgatgcac ttcgactggc ttcgccttaa ccgcattctgc cctgtctgcc gcttcgcgct 120  
ggccccacag tcagacgacg acagcaacaa ggatctggga ctgcctgaga aagtcgaata 180  
gctcgacagt ttgccggaag ttgaattgaa gtgtgcagcc cttgcaagcc acgactgtgc 240  
tagcaggttg tattcatctt cttttctgtt atgttctgtt ttttattgga ttatcgatca 300  
aaagcttgta gtttgaacca aaattacttt tttcaacttg aaaacgggct cttagtgt 358

<210> 10897  
<211> 409  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-G10

<400> 10897

gggtagacat atcacacgcg cctaactgac acaatgacga gctgacacgt gtttcgtccg 60  
gccaataaga attttacacg tggaaatttc ccattgggtcg gggccgttaa cgggttatcg 120  
gatccaaaac ccgacctgat agcttaacag cgttccgtta cgggtggatgc cacgtgtcgg 180  
tcacccttga cgaaagcact tctgtgacgc acgatttata gtcattggaag tggacacttc 240  
cgtgatgata attttggtaa tgtcatggaa cacttctacg acagcacagg tatgactatc 300  
ttgattctat cataaaatcg tcatggatgt acatgcatga caaaaaacgc gacctactgt 360  
gacaaacacg tatcatcacg gaagtgcatt tttttagtg tgatcatta 409

<210> 10898

<211> 251  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-G12

<400> 10898

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 atgtattggg gctcttgggc ctgaggaccg ggcagtgcgc gcaggagcct accgcttaat 120  
 tgtgggtctg tgggatgtgg ctgtaattgt ggtcgtacgc catgaccgga gtagctagta 180  
 gtgtgcgctg cactgactgg atgcaggcag cgatgcgacg catagccgga gggagggttag 240  
 ggggccaccg a 251

<210> 10899  
 <211> 364  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-G2

<400> 10899

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 catttgtcat cgcaaacgcc acaagagaac aacctaccct gacaggggaat gcaagagcac 120  
 catcgggtgg gctcaaagtc agatgtgaga gttaattttt ctaaatacaga aacttgtact 180  
 ctgaagattt tctagtgtgt ttcaagtatc aatgcgcctt tgtgttcctc cagttcagga 240  
 cgtcagaatt actataccat tcagtagact ttgttgctgt tcatcactat tttcttgggt 300  
 tcctcttggg ccgtcagtgt ttgtaagcga tgctattcat gtacgaagta cttgcgaact 360  
 tttg 364

<210> 10900  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-G3

<400> 10900

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tctacctagg ccaagtccca gacatggcgt cggagataag cgccggcagt gcacctcttc 120  
cattgatgct tcctgagata aaagatgggc tgaagagcca catgttctac tgctagtcca 180  
cacacaaatg aacgaagcct gaagcctgga gaactctaaa gattttatctt caagtataca 240  
tggcaacctg aagattttat tttgtttctg ttggtttgat gaacattgga ctatctctag 300  
tctctttaat atttccagag aatgattggg ttatggcttt atgcaagggt atgaatggaa 360  
agttttacaaa agaaaaaaaa gaaggaaaaa aaaaaaaagc gggcgct 407

<210> 10901  
<211> 415  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-025-Q1-E1-H10  
<400> 10901

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agccatattg atgctctcgc tattgttgtc ctcatctgta ggcatagtct ataatggaac 120  
tcgtaaagggt gctagtcagg aggtggccca cagtgccttag gctaccaagt atcgttactg 180  
atgtatctgt gcctggctaa tcatgtgcaa tgtgtggcct gctctgttct gtgaaatgag 240  
ctgtgtgacc cttgatgtaa tgtctgtcaa ctttgaaagt gtcgcgtaac tatgtatttg 300  
tatcttaaat acatgtcata aacctgtaac cctttgaaac aggacctgct gtctattggg 360  
attactgatt aaagtgatat ttggttcgaa aaaaaaaagg gggggagaat aaaaa 415

<210> 10902  
<211> 397  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-025-Q1-E1-H12  
<400> 10902

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ctcaatgact ctctcccata gcttcattgt atggctcatc agcttaattc cacggtaatt 120  
agtacaactc tgaacatccc ccttggttctt gaagattggg acgaatatac tccgtctcca 180  
ttcttctggc atcttgtttg cccgaaaaat gaggttgaaa agcttggtta gccatactat 240

cgctatgtcc ccgagacctt tccacacctc aatggggata caatcagggc ccatcgccctt 300  
gcctcctttc atccttttta aagcctcaaa caaataaatg ttgtgaacat gtaatttgcc 360  
ctgtccacat gtaatcctct ccattcataa ataattg 397

<210> 10903  
<211> 433  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-025-Q1-E1-H4  
  
<400> 10903

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gtggagaagc tgataacatc aaagatgata cttgctgggt cgaaccggag acttcattcc 120  
gtgcaccgga actctggctt ggctgtggct gggtagcag cagacggat gcagatagtc 180  
tcaagagcaa agtcagaagc agccaactat gaaaaggat acggagaacc catgcctgta 240  
aaggaattag ctgatcgtgt tgctagctat gttcatctgt gtacactcta ctgggtggctc 300  
aggccttttg gctgtggagt tattcttga ggctatgata cggatgggcc acagctctac 360  
atgatcgaa cttcaggcct ctcctataaa tattttggtg ctgctctggg taaaggaaga 420  
caagctgcaa aaa 433

<210> 10904  
<211> 427  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-025-Q1-E1-H5  
  
<400> 10904

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gatcaaggtg aagacactta ctgggaagga aattgagatt gatattgagc ccaactgacac 120  
aatcgacaga atcaaggaac gtgttgagga gaaagagggc attccacctg ttcaacagag 180  
gctcatctat gctgggaagc aactcgctga tgacaaaact gctaaggact acaacatcga 240  
agggtggttca gtgtccatc ttgtgcttgc tctgaggggc ggtagtaga tgcaacctcg 300  
acgtggaccg taaaggccat ttctaccaga acttggttgc agacctagat ctgtgaattt 360

gccggttgat tgaagtgcc tgaattgac gcatttgtga agtcagctgt cacctgtact 420  
 tggatgg 427

<210> 10905  
 <211> 350  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-026-Q1-E1-A11  
 <400> 10905

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 caaggacgga ctcacagcag gcgcctatgt gtcgattagt agacagtgtg gtgtcggttt 120  
 caagtcttcc taaatcgtct ggtaaaaggt tgtctgtgcc tagtcacgca actattagca 180  
 tgtgtatgtg tgggagtcac aggctggtgt ctctgtcagt gagtcacgtg atatgtctgg 240  
 ggagcttcac tataggggta ataagacagt ccactaccac aacgacgact aaatggaata 300  
 tcttgaggac cgcagtagct gggatttagt gtgtagtcgt tcagagttaa 350

<210> 10906  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-026-Q1-E1-A2  
 <400> 10906

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 cttegtcagc accaagatga acgacattga ggccaccttt tcctttgaca tggaaaagca 180  
 aaagtgggaa caacttggca gttggggcgt gcccttcgca ggccgtgggc actttgatcc 240  
 gtacctcaat gcctttgttg ggctctccaa agattctgac acccttgggc aagtctactc 300  
 ctgctgcttg tccagctcca gcaactggca cggccttgag tgggaagctcg gcaaggagag 360  
 gctgttcagt caggacccag ctgagaggca tgtatgcgcc accctagtct acgtgggcca 420  
 gagcaaattc tgcttagtgc 440

<210> 10907  
 <211> 291  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-A3

<400> 10907

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 ataaaacgat ctagctgtat agagtgtcat catcagatgt tgccaaggtt gctccaacgg 120  
 aagtactcgt cttgcctcag ttttctgtga aatttccatt ggattaccta cagccgtatg 180  
 aataccgtca tgtacttctc actcaacttc actgggagca ctgccaccga tgtgatatag 240  
 atgggtgctga tcacttacia gatggatgcc agcagcaaga tttgcactac c 291

<210> 10908  
 <211> 260  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-B11

<400> 10908

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 caccgtgca cggatgatg atgaccgtca cctaacaatga accgtgggtt agcatgattg 180  
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 agctgttctg aactatgcac 260

<210> 10909  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-B12

<400> 10909

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 gacgctgtct tcagaggatt ggcacgactg ctttgaagta gacacggatg atatcccat 180

gacagatgaa gtatgttctg ctttgttccc tgggccacgg gacgatgaga aggtggagga 240  
gccatcggtg agcgagctga tctgctacgc tcccaccctg agtattgagg atgatgttct 300  
ctacatgatg tccaagctga cccttgatcc aaggaaccct gtggcatggg tagctgctgt 360  
tgacatggaa aagaaaacac tggaaacttat ctctgttaat gatgaaattg catcccgta 419

<210> 10910  
<211> 448  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-B2

<400> 10910

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gaggtctttc aggtaccctt ggggtcgtga caagctcaac gccgaccgtg acacgggtat 180  
caccatcgac attgccctct ggaagttcca gaccaccaag tactactgca ccgtcattga 240  
tgcccctggg caccgttact tcatcaagaa catgatcacc ggtacctccc aggttgactg 300  
tgctgttctc atcatcgact ccaccactgg tggttttgaa gctggatatc ccaaggatgg 360  
ccacacacgt gatcacgctc tccttgcttc gactcttggg gtgaagcata ttatctgctg 420  
ctgcaacaat atggacgtca ccactccc 448

<210> 10911  
<211> 372  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-B7

<400> 10911

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gcttttgcca gaacgggggt tttgccaac caacatagga aaattgacgt gtgattgtat 180  
ggcaaagcca cgatgatcga agaagctctc taacgcttgt accagattcg acagcattag 240  
tcgtgcactg cacgctagca ttacaccgct acagagcgctc aaaactccta tggggcaacc 300

cgccacctgc atgtgtgaac taatcctaaa tgggaccctc cacaaatcat ttgatgggtc 360  
catagaatgt gg 372

<210> 10912  
<211> 444  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-026-Q1-E1-C1  
  
<400> 10912

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gatgaacagg accatcattg ttgcaggaa ctacctcat tttgtgaaga agtatcagag 180  
gtatgagaag aggcactcca acatcccagc tcacatctcc ccctgcttcc gagtcaagga 240  
aggcgaccat gtcattcattg gccagtgcag acccctgtcg aaaaccgtga gattcaatgt 300  
cctgaagggtt gttccagctg gaaccaccgg aggcgggaag aaggctttca tcgctgttta 360  
agcccaggct ctgattcatg agtagttcat agtcagacgt tttaagcact taaacctacc 420  
aagctgctgc tgttttgcca tttg 444

<210> 10913  
<211> 426  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-026-Q1-E1-C12  
  
<400> 10913

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taacaacaag aagagtattc gaaaggattg cggttcgctg tgtttcacia agaacagcat 120  
ggaagcttct caaagatgct gcaaaatcgt caaagaggaa agctatgagg gggatgtcaa 180  
ttccagaata cacatactgt gttgccagaa caactttccg aggtaagatt tacctgcagt 240  
atcacttttc cttttgtaaa ttattattca attatttttc tttgttcaaa cagcgcatgc 300  
attgggagta gctgctactt gggttgtaca atctgtcgtc cagggtgtaca aatgttttat 360  
tcgtcaacct gataatgatg acgatttggt cgacgagaag gaaaaactca aaatgtttgc 420



gagaag

426

<210> 10914

<211> 455

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C3

<400> 10914

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ctcaacctgg tgtttcttaa ccagtggtgg catacagtta tcatctgtta aagcatataa 180  
tcaatggtga actggcatct ttcaatccgg tctggctttg actacctgtc gctagtatga 240  
tcatccggtg ttcatacaca cccgggttta cttcttacat accagcattg catggtggaa 300  
gttggttatt cacccttact acaaataagt tggtaaaccg acagcataat ttcatatcac 360  
acgtattatt tattttttgc tatttttaca accttggtta cctaccaagt tgtgtaatgg 420  
gcattatgac ccatccggtg gtaaaccgcc cggac 455

<210> 10915

<211> 405

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C4

<400> 10915

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acctgaatc tgccaagaag ttcgagccca agtaccgccg catcaggaac ggccttgcta 180  
ccaaggtaga gaagtcacgc aagcagatca aggaaaggaa gaacaggaca aataagatcc 240  
gtggtgtgaa gaagaccaag gccggagatg ccaagaagaa ataagaacat ttctgtcttc 300  
atctattcac tatcagcctt tgcttggttt aggacggtat ccctgtggca atgttgctga 360  
gtgcttaatt atgactagaa aagactttgc catttggtgc aatct 405

<210> 10916  
 <211> 338  
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 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C5

<400> 10916

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 acccctgcaa aaccagctgg tggcaagcct gtcctatcg aaccaattgt ggtaaccgg 120  
 aaggcgaagc tgtcatctga agtgatgaaa atgattgact cagcaatagc tggctctgag 180  
 aatggatata caccagttat gtcagcagaa ggttcagggg gtgtttactt catgcaagac 240  
 tcatcaggcc agaagaatgt tgcagtgttt aagccgattg atgaggaacc tatggctgaa 300  
 aacaacccaa ggggtcatcc actgtcgact gatgggga 338

<210> 10917  
 <211> 347  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-D11

<400> 10917

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 agtgtacttt tcgaggacgt accgcacgtt agaaggctga tgccacaca gacgatgtac 180  
 cgtcagatca ggctctctgg caagatccac tggtagagat ttcagctccc atgtggaaag 240  
 cctgggtgcc attcctcaga aggaggcatc ctccatcccc atgtcgagaa ataggttgac 300  
 tcatcccat ggcatccac ggacaatgct gtggtccatc gctcagt 347

<210> 10918  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-D3

<400> 10918

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gtgggctccg ggaaggagag ctccgcgccg gaattggagc tgtctgcggg gaaactcaat 120  
ccgcacgcac catggttggc aatgaggatt cgtattggat cagcgagtcc atttagatgc 180  
agcgtggtca agttagccgg actgtgggcg cccgcaataa taaaagagat tgggagacca 240  
tgcagacctg ctactgcaa gaaccacggt gtacagggtc actcgagatt tttttgtac 300  
aagccgggtg aaatgagact ggggttcagg gcttgaatcg gagttcctgc caaatggtta 360  
gacagttggg ttcgaattcg ctccagttgt gcatcaca 398

<210> 10919  
<211> 397  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-D4

<400> 10919

tagcagcgac attacgacac atcgtcgtgc tcaccaagat atgcacgttc tgctgcgtca 60  
gacagccgcc gctgtcgtca caaggtacc taatacacca ccatcattcc caggaaaatt 120  
ctataggacc aacatacatg cttcagctgc tcagatcaac tcctccatt cgctgcgtc 180  
cctcctctca atccaggacg cggatctccg acaagaattc tttcgcatcc aatcggagtt 240  
tgcggaaatc atccatcaag atgtccttca tacctcgggg aagttctacc tcaacaacct 300  
accgtccaac agtgacatcg acacaatgct acaaatgcat gctgacaaca accgttattt 360  
catgactccc acgatagact gcagcttcat ccacgct 397

<210> 10920  
<211> 368  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-D9

<400> 10920

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cctgtttata tctcaattga tgatggtaaa tcaaatgcta ccgtggaacg cttacagcac 120  
ggctattgtg tcattcctag cgacaagaag tttttggttc tgtatgcttt cctaaaaaag 180  
aaacagtcta ataaggctct ggtgttcttt tcatcatgta gctcactaaa gttccatgcc 240

gagctttctaa attttctcca gataggggtgc gaacatatcc atgggagaca aaaacagcac 300  
 aaacgaacta caacattctt taactttctgc aacgcacaaa aaggcatctt attatgcacc 360  
 taatgtgg 368

<210> 10921  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-026-Q1-E1-E12  
 <400> 10921

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 agtttgcgga aatcatccag caagatgtcc ttcgtacctc ggggcaatgc tagctcagaa 120  
 atcaggcgtc caatagtgc atcgactcaa tgcgacaata tgcaggctga taacgcccgt 180  
 tctttcatga ctcccacgat gagaggtggc ttcattccaag ctccggctgc ttgagtcaag 240  
 tcgaaagcag tgatactgtg tccagttctg aaacatcgat tgggtcatgt tgtaattaaa 300  
 cttaaatgaa cttgtagtat gtctctttgg ttctgagagt cgttcaattt agatgtaatc 360  
 gatgcgaata ctgtcttgca tttctcttcc gatcgctccga tgca 404

<210> 10922  
 <211> 431  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-026-Q1-E1-E2  
 <400> 10922

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 gcctggcaac gcagcctacc ttcttttgc atgctgctct agcagtggct gtttcattgc 120  
 ttcttatgct atattgtgct ccacgggatg ggcagacgaa cataatgatc tatgttggtg 180  
 tttgctctgt tatcggatcc ctacggtaa tgagcatcaa ggccgtgggc attgcgatta 240  
 aacttaccat tcagggcgta aaccaggctg ggtatttcca gacgtggatg tttgtgacgg 300  
 tttcagctat atgcttaatc atccagttag ttacctgaa caaggcattg gatactttca 360  
 atacagcgct ggtttctccc atctattatg ccatgttcac aaccctcact attttagcaa 420

gtgccataat g

431

<210> 10923

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-E4

<400> 10923

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gccaacctc cgcctccttg ctcaaaagta taatgagaac atactagtct gcctcaagtg 120  
ctatgcacga ctaccacca gggccatcaa ctgccgttag aagaagtgtg gccatagcaa 180  
tcagctaagg gaatagaaga ggtttatgtc caagtttgcc aaggcttcct aaacgttgga 240  
aatatgctga atcagccgtc caacgtcata catattggcg tttaagttct gtcccttggt 300  
tgaagtcacg ttggatttcg cagaatcgtc taacgtcgtc atatataatg gagtctaaga 360  
tttgtccagt tgatagtcct gttggatttt gaccctatgt aagctttggc atacattacc 420  
tagc 424

<210> 10924

<211> 161

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-E5

<400> 10924

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tcgagcgaac gggggaagag ggaccgctcc ttctgcatcg ccgcgagccg ctgcagcctc 120  
tggcgacttc acgcccttcc tcgtgtcagg ttttggtgcc a 161

<210> 10925

<211> 473

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-E7

<400> 10925

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 acatcttaat atctagcccc atattaagtc gttgggtttat ttttttgtga gggatatctga 120  
 tgggtgggttt ctacaacctt tttttaaaatt gtgcatatgg tagaaattac aggtgggtgcc 180  
 ctacaaagga acagttgccca ccagtacaaa agaattagat tatgatctat gaaaaaagca 240  
 caagttttaca tatgtcttgg gagttgtatc aatgttcctt acatgagaga ttattttactc 300  
 agataaaaat aagaacagta gtcttttttg gaggaacaaa gtatgctgag ataaatatct 360  
 gaattctttt ttcattgttg actgggagat attgggttaga aagctacttt accgtgtcac 420  
 acatggagaa gaagacgatt ggaaaatttc ttccaaataa ttacgaagtc atg 473

<210> 10926  
 <211> 346  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-E9

<400> 10926

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 caagtggat cagatttcca ggttgctcgg tgagatttta cagtttttcg tagattagat 120  
 cgagtctgtt cttcatacct atagtccacg taaaagccac aaaaagaaa attaggggta 180  
 gttcatcata tccgaaccaa tctgagccgt gcacaatcct tttatgggtt tgcattgttg 240  
 aatttgcggt tgcacgctcg tgtctagatg ctgggcgtag agtctactcc tttagagttt 300  
 cgagttctgg tcagaaattg tgacgccgcc ggcggaccat catcat 346

<210> 10927  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-F1

<400> 10927

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 acacgttatg gtgccagttt gcgtaagcag atcaagaaga tggaggtgtc tcagcactcc 120  
 aagtacttct gtgagttctg cgggaagttt gctgtgaaga ggaaagcagt tggaatttgg 180

ggatgcaagg actgtgggaa ggtgaacgct ggcggtgctt acaccatgaa cactgccagt 240  
gcagtcactg tcaggagcac catccgtcgc ttgagggagc agactgaagc ataagttgct 300  
accagcagtg ttttgccta aggaattatc tgttttttgt agtttagacg atactttgga 360  
ttcagttctg ttggctgttt agtcaacggt atcattgtac ttggtgccat ggatgttttt 420  
gttaaggtat tcccccc 437

<210> 10928  
<211> 206  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-F10

<400> 10928

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gtgatcgccc ttgcttgag agaagtgatg gcgatgacac gatgacacca atgtgccacc 120  
tcgacatgtc ttctttgtag tgttatgtgt cggttacctg gccggtgccg ctccgttga 180  
ctgttaatgc ttttggcccg gttttt 206

<210> 10929  
<211> 412  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-F11

<400> 10929

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atgagagcac cgacgatcaa gagcagtttg cagggacata cagtacaatc atgcatgcat 120  
gggaagagat ctgaacgaga cttttgttta gattactacg gctactagct agtacacaag 180  
tcaattcatc agagactaaa ccgacgaaca aactcaatac gcgtatggat acattataag 240  
ttgaaccag gaagcacaga tcttagcagc catgcaatct ccccaaatta acccatcgat 300  
ggatggcat ggtataatta accaatacta ttaaggagta tgtcagttgt agagattgag 360  
atcaaccgca gctttacgta cgtaaagtgt ttaccctgat gcagatggat gt 412

<210> 10930  
 <211> 337  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-026-Q1-E1-F12  
  
 <400> 10930  
  
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 gaggagtatg cctgctcccc tcgaggagat tcccaagctc accgctgcct gctgggagaa 120  
 gatgctcccc ttgaggagat agatatccag gctcatcgca ctatacggag ccatgttttg 180  
 gcccgaagtt tctgaagtg taatgctgct tcagccgtgt ctttctgccg tgtcgctcct 240  
 caaatgtagt ggtaacttaa aacgtgttat atatgtacat gtttgattcc gatgacatcg 300  
 gggttttctt ctgttctact atctgtttga tctgcaa 337

<210> 10931  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-026-Q1-E1-F2  
  
 <400> 10931  
  
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 aatcgaggcg gaggagagag gggttcgctc tgtgagctca cagtgagtcc aacatgcgtg 120  
 agggagaggt cgggggatgcc ctgtagctcc caaatcggcg gcgaggatcc atggtggctg 180  
 gcgatgggaa cggcgatgct ggcgaagttg tggcgcgtcc ttcactccat ggcttgggtg 240  
 agaggacgag gaagacgcgg cgggtgctttt tgaccacagtg gcacgacgtg gggtagccgg 300  
 tggccgtgag aacagcgagc ggtggtgaca agctctactc gggttcctct agtcttgcca 360  
 gacacggacg aggacgaggg aatgaggcca tgggtgtcgg tgggagtgtg tggcgtcgcc 420  
 taagcgcat 429

<210> 10932  
 <211> 458  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations



<223> Clone ID: LIB31-026-Q1-E1-F3

<400> 10932

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gcaaggatgc caaggagttg atgaaagatt acttcattgg ggagttggac ttggacgaaa 180  
cacctgacat gcctgagatg gaggttttca ggaaagagca ggacaaggac ttcgccagca 240  
agctggcggc ttacgctgtg cagtactggg ccattccggt agcagcagtt gggatatcag 300  
ccgtgcttgc tatattgtat gctcgaagga agtcatgac gggttatagg tgattgaagg 360  
accattttgg ggtaaccaac acatttatag ctggttatgg atggagagat tatgtacttc 420  
tgtccanagg ggaagacaca ttgctgtatt gagccctt 458

<210> 10933

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-F8

<400> 10933

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tagaagcatc acatttttta aaggatgact gcctagtaat gaactgcaca gtaggtgtcg 120  
tcaagaaccg tctcgaaca ccatagaata tccagattaa tgttccccca tcggatattg 180  
gccgttgctt caaggagctc ttcgaactcc acattggctg tgacataact tttgaagtaa 240  
gtgatgagaa agtccaggca catgaatgga ttcttgccgc tcgctccccg gtgttcaaag 300  
cccaattctt tggacctatt ggtaaacctg acatgggcat agttgttgtg gaggatgttg 360  
aacctatcgt cttcaaggca atgggtcaatt tcatatattc tgatgagctt cctagtattc 420  
atgaagtagc tgggtctttc tcaatgtgg 449

<210> 10934

<211> 267

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-F9

<400> 10934

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tactactagt cagcactaaa tgtctcaata ttaaattctt ctctctccct tccatttatc 180  
tctcttcaact cacttgtgca acaacaatta tcgctatact cacgcgcaag gaaagaaagc 240  
agcacagtcc tgttcctttt ctccctc 267

<210> 10935

<211> 410

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-G10

<400> 10935

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cacgtttttt taagatcata gaagagtaga tctacaccat cctcgtgagt gtacatatgc 120  
atatgcgtgg tctgatttta gacactcctt aattattcct ctaggctttt tatcccacgt 180  
cctgttacac tgaagccatc gtcggtgtgg ttctgctega tctcctcccc tgcgtcttgc 240  
tgtagtggcg tcatcatcgc caccgttcac ctccggcctcc tctcctacag cctactgcac 300  
tgatgttgtc atggcacgca cactatattt cttctcctct atcctctgcc tcagaaccct 360  
gcgattcttc cctccgcata aaccttttgt gtggtgacga cgctaggaac 410

<210> 10936

<211> 412

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-G12

<400> 10936

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cgaacaatcg ggaatgtagg ggtaagcaca ggagccaggc aaccagctt ggcaaaaatc 180  
ttaagtcaaa ttgatgcata tttatggctt tataacgatg attacggaag gcaacccttg 240

tatattaaat acaaattggcg atgatatggt tattttgact ccgttgcgac cgtttatcag 300  
 ttgaaagtgg cccatcgctg gcttctaccc cttttagat actacgcatg gtgtccccc 360  
 aataacaaga caacccttag ccgacgtctc ggtgccccaa agcggttggt tt 412

<210> 10937

<211> 398

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-G9

<400> 10937

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 ttaccataga ggtgggcatc tcacagaatg tgggtgtatg cagacgagca tagctctcgg 120  
 atataaatga atgagatgct cctgtatcga aaagcacaga tgccgggtgg cgattaacaa 180  
 ggagcgtacc gagaacgacg ttgggatctt cttgagcccc ttccgcagaa acacaattta 240  
 catgggcacg agcagtgggt gccggcttgg cgtacaacac ttccctgtc ggctttccgc 300  
 agccaacagt ttttctgtc tggttggggt tggtttgggg aactcgcgc atatagtggc 360  
 ctgattcccc acacttgaaa caagtcacgg aactggta 398

<210> 10938

<211> 233

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-H12

<400> 10938

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 cctccgaagg gttattgacc acaccggagc acgatcaacc tgaccacgag ggtctgttcc 120  
 ctgcgagcaa acgaagaaca agcaagaaac tgagattgca atttgatat tgccaatata 180  
 agatgaaagc tttattgatc aagggtgggt tccataaccc ctttgccggg ttg 233

<210> 10939

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-H4

<400> 10939

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attgaatgtg actccgtttc ttgttctgtg ttcgctacag accacatggg cttttgttta 120  
gctggagacc acatgggctt ttgttcggtt gtgttgcaact catccatcgt tgtgtttttt 180  
ttttatttag ccacctaata catgcattgc tacactgtgt aatggagctc cgattttgtg 240  
gctagcttgc ctcatgttcc gtccttgca ttogtgcac cttgttacac cttttcgttt 300  
attatttaaa acaattactt tatatttaaa aaaggacaca ttttttttaa tgtaacaatg 360  
aaataacagc caaaaattca gaagaagaca attaatttag ttgggtgcaa acataggata 420  
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<210> 10940

<211> 375

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-026-Q1-E1-H9

<400> 10940

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attctatgtt ttggagagac agcgggttcac ggacgaagct tgtctgcttg ctcatgtttc 180  
tcgtgcctca tttcaaccat gatcactcga tgcagtttgt tatcaatgcc ccatatagtt 240  
tcacaaagaa aagaggctct ccacagtaaa tcatgaaatg caccgcgatg ctgccagcgc 300  
ttgctcaagg atgaaggatc atggcgccang gcaaatgaga cgcgatgcaac cggtacctgt 360  
ctaagctgat catgc 375

<210> 10941

<211> 302

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-A1

<400> 10941

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 actgaagatg aagatgtctg cccaacatgt cttgaagatt atacttcgga gaatcctagg 180  
 atagtaatgc agtgctcaca tcaattccac cttggctgta tctatgagtg gatggaaaga 240  
 agtgaggcat gccctgtttg tggaaagaaa atggagttca acgagacgac ttagacctca 300  
 ga 302

<210> 10942  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-027-Q1-E1-A10  
 <400> 10942

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 gaattgtcct taggaatctg gaacaccatc aggcaggagc ttcaacctga agacacaatg 180  
 gcgagcacia gcgcgacgaa ttctccaaca gggatgact tctaaccttt ggccccagaa 240  
 tggatgcaaa ctgcgggtta agttgtcgcc ggcatttgaa gctgccgcgc aagctgtgac 300  
 cttggaactt ccaccttgag gagaactgtc agaagagatg aatgaacgtt caaccggcag 360  
 ctgttgagtg tgcaattttc ctgttgtttg tctgatgtgt aaaagtaact taaaaagtgt 420  
 tagcgtagc atc 433

<210> 10943  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-027-Q1-E1-A11  
 <400> 10943

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 tcttgatcgc aaagcttgtg tctggttgga atagaaatta tgcaattttg agcctagact 180

tggtgttatc tgcattccc aacattttct aaatggaatg tgcactatca tcagctacat 240  
gcagaacaag accctcaagt tatatactgg aaattatgat cagtatgttc aaactcgtc 300  
tgaacttgaa gagaatcaca tgaagcagta caaatgggaa cacgaacaga tagctaatat 360  
gaaggacgta cattgtccga tttgggtcatg gatctgcgaa acttgctcgt caggctcaga 420  
tcacagagaa gactc 435

<210> 10944  
<211> 437  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-027-Q1-E1-A12  
<400> 10944

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tggacgccga tgaaggagac gaccaagaac cagcacctat agggcactgg aaagccacgc 120  
catcatacga tgtatacatg gtggacacac ctaaaagaaa caacgacgag gatcaaaagg 180  
gcgcaaccag gaatcgctcc ctcgaaaaac aatcaaagcg gcagcgtaag cgccgcgcca 240  
agccccacct cgacaaagac ccagccatag agcatggcga atcaacggaa gatgaacatg 300  
ccatcgagca accgtccaaa cagggcgagg aaaccaaaaca atcagtcgcc gggaaagata 360  
atagtccgga cgacctcagc ccggacaagt tgccagaaca tcagaacctc caccaaaggc 420  
tcgttgccac tacacgt 437

<210> 10945  
<211> 360  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-027-Q1-E1-A2  
<400> 10945

gggtcgagac cctcgggaac atcaacaggt cggggaccaa ggagtcatg gaggcctcg 60  
ccgccggcgc cgacgtgtcc atgattgggc agttcggtgt cggtttctac tccgcctacc 120  
tcgtcgccga gagggttgtc gtcaccacca agcacaacga cgacgagcag tacgtgtggg 180  
agtcccaggc cgggtggtcc ttcacgtca ctcgtgatac gtctggggag cagctcggca 240

cggttaccaa gatggctctc gacctcaaag acgaccagat ggcatacctt gacgagcgcc 300  
gcataagga tctagttaag aagcactctg agcttatcag ctaccccatc tccctgtgga 360

<210> 10946  
<211> 203  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-027-Q1-E1-A3

<400> 10946

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aaggtgggggt ttcgcggtctg gagcggagag gttatgacgg ccggatttcg aatggcgaaa 120  
aggaggcgat gggagggagg aaccatgact tagggacgcg cttgtccaaa atgtanggtg 180  
tgttacaaaa gtacccccgc cga 203

<210> 10947  
<211> 404  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-A4

<400> 10947

gtctaggaca cgcgggccga ccatggcgtc taccaacact gggggcatcc ccatcaaggc 60  
cgaacaggat tcggatggct cggcccacag cacagctgac atgactgctt ttgagcaaaa 120  
tcttctagtt cagatgcaca ccaggttcca aaccatgtca gagaacatca tcacgaagat 180  
agatgaaatg ggtgcaagaa ttgatgaatt ggagctgagc atcaatgacc tcaaggctga 240  
aatgggcagc gatggtatga cccctactag agtgaacgac gaagaatcaa agccagcaga 300  
cagctcttcc tgagtgaagc agaagtagca gaagcaaggc gtattagtct tggttccatg 360  
tcgatatcat cagccattca tcactaactt actgcagggtt agga 404

<210> 10948  
<211> 309  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-A5

<400> 10948

ggccgacttc taacaacatc actgatgggtt acaacttcac gtctcttcat gatcagcttc 60  
agctgtaatt tggttccagc ctaagcaacc gaaacctcaa cttgcaaatt gtccaagtat 120  
aagggcaagc cagccaaaag taggtaccaa tatgtgtcag gctgatcatg cgagagagta 180  
gactactatc aaatacccag ttacatgtac ccaatttacc gagcatatca tagggcacat 240  
gtaccaaaaa tggtatatca gacatttagt ggaagatcac aaacttctga aaaaaatgct 300  
gaagcatct 309

<210> 10949

<211> 263

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-A9

<400> 10949

atgacttcaa tgatcttgac atcgatcgca caaagaaagc ttggtagagc gaccacgtag 60  
gggagacata tgagactgag gatggaatgc atcgatcaat atgcagtggg gcacaaccgt 120  
tctttcagag agaacctttc acaatccgca tgagtttctt cagctccata gccagatatt 180  
gacctgtcgc ccagaacctg ggttgctctt ggtgtccaca aaatatctgt gcaagtctaa 240  
ggctggaagg gaccagattc cgg 263

<210> 10950

<211> 389

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-B1

<400> 10950

cgggtcgaga cttagaaacc aaacacacag cacgacacaa gatcggcatg acaaaacaac 60  
ctgcgatcaa gatttgcttg acattgagtg aacatatgac atagtgaaaa aaagctcata 120  
aatttaaaac agataaataa aaataaaaag gaaaaataa aaataaatgg aaaaaggaga 180  
aaaattatat ttaaataaaa aaaatcagga tttctaatag ttcataatta aaaaataata 240



ataaaataga aaaaataaat ggaaaacgga aacaaaataa aacaaataca ggggtgtcata 300  
 tggaagtcca caaaaataag aagaactagg accgattcat ggcagacttc aaaaaagaaa 360  
 aaaaccataa aaaaaaaagc ggccgctct 389

<210> 10951  
 <211> 307  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-027-Q1-E1-B11  
 <400> 10951

aactgtctac aaccattgtt agtcatgatg tacacaagat catcgattca gctgtaagac 60  
 atacaaacgg tacaccacaa cggatgaggg caaaccaaga tacgccctct atctaccggg 120  
 aaaggggacg atcgtttgag aatggatcaa tacagtttca tcatggaaat cacatcatga 180  
 tgaccgcagc tctcttctat gtgaacgtac ttacatgat tgatategac atgtcatgtg 240  
 atcatatcat cgctactcac ggtctcgaaa cttgttacac actgttctat ctgtgttcag 300  
 tcttttc 307

<210> 10952  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-027-Q1-E1-B2  
 <400> 10952

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 tatgatgctg cgtggacctg aagggccaag aacattatgc aatgcttgcg gcctcatgtg 120  
 ggcaaataag ggcattgtga gggacctatc aaagtctact ccccatctc ttcaaattgg 180  
 gtcaacaggt ccaaatgata gtcagaatgg aaacaccctc tctcagcaga atggaagcac 240  
 cctctctcag caaaatggaa atgctgccat aatgcccttt gccgagcaac ataaccagc 300  
 atcagcgacc gatgccaacg gtcacggcca tgggtcttca acaatgatga gcgggattgc 360  
 tgcttgTTTT taacggtgga tggatgaagg aacgtcatcc tctccttga gtgaacctcc 420  
 tgt 423

<210> 10953  
 <211> 242  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-027-Q1-E1-B3  
  
 <400> 10953  
  
 agaccggaca ctaactccgc cgatgatgat gaccagcttg gtggctgctg ttgacatgcc 60  
 ctgcttcctt tcctgtggag atgtgttcat cggcgtgtaa tttttgtaca tatcgactcc 120  
 gtgccatttg gtcgctgtaa gacgcctcaa tgccatgca gcaagtgggt ggagttgtga 180  
 gtttctgaat gtactgggaa tatgggtgta gtgatgtcag cataagaatg tcatgggagc 240  
 ag 242

<210> 10954  
 <211> 404  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-027-Q1-E1-B4  
  
 <400> 10954  
  
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 gggtcatggg agtcctaaag aaatatgtcc gtaaccgcgc taggccagaa ggaagcatct 120  
 ccatgggcca tcaaacagag gatgtcattg gggtttgtgt tgacttcatt cctggcctta 180  
 agaagatagg tctccctaaa tcgcggtatg aggggagact gactggaaaa ggcacgctat 240  
 gagcggactc aataatatgc agggacgggc attcttggtc tcaagcacac tacacagtct 300  
 tacagaactc taccttgggtg accccatatt tcgatgaaca caagaatagt ctgcgttcca 360  
 gacacccgga gcagtgcgac gactggatta catgtgaaca catc 404

<210> 10955  
 <211> 442  
 <212> DNA  
 <213> *Triticum aestivum*  
  
 <223> Clone ID: LIB31-027-Q1-E1-B5  
  
 <400> 10955

ggtcaagaac tcgcggggtcg acattaaaca cgaaatggag tctgatcatg aaaacagggg 60  
 tgtgaagttg acatacaaga ctctgaagga aaagatcaag gaaatcaaca agaaggatgc 120  
 caaattctac agcaatatgt tcgctaagat gaccaagcct tcagcagaag aaagcaaagc 180  
 ttgaactgga gcagtagcca aaggaaggat aggagtcccg gagtgcgctc aaggaagggg 240  
 cagcttgtct gctcagctct atgggctggg tagatcacac atgtgcttgg agttgctata 300  
 gactagagaa atttcagttt tgatattgcc aggcgatatt tttttcttgt caagaacaat 360  
 gcatgttttag agctttgcat attacagtgt gtgctttccg ggaaatagat ggtcctgcct 420  
 taagaatctg tgttgtgtgc ca 442

<210> 10956  
 <211> 420  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-027-Q1-E1-B7  
 <400> 10956

gtctagaagt cccggggccga ctgataagga aagcatgaat agaggaacgc gtgtagggga 60  
 aggtgcacta agggaagttg eggcttatat tctcgaccat gcagttggtg atcgtgaatc 120  
 gggtcacggg gttgggtttt ctgggtgtgcc tcccacagca ttagtccgaa gcttacatag 180  
 gggaaagagc ttcaagtttg gatctctgca gatgtttatg gagaacgatg gaagttgcga 240  
 ggatatgggt ccccggtgctt ttccagtgaag ggaggtacac aaaatagcag tgttagatat 300  
 taggttagcg aatgctgacg gtcatgcagg gaacattcga gtgtccaagg aagaacgtgc 360  
 cacctgcaag ctgattccaa ttgatcatgg ctactgcctg ccagacaagt ttgaggattg 420

<210> 10957  
 <211> 338  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-027-Q1-E1-B8  
 <400> 10957

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 ataagtacga cctggccacg cccccccccc tcacaagcac accatacagc ggtgacgtac 120

gcgacatgac atatatatat atggtgggga cgagcttatg acggcagtgc ctgtgaatgg 180  
cccttttggg cgggtgcaggg cgctgcactc atcagtaatc taccgacaga aggtcctcag 240  
tgccatcacc tcccgcctcc cctcgacaga tgggtgactgc caagcacatg atctctctcg 300  
ctggcggggc ttgcccacac actccattca gcttcgaa 338

<210> 10958  
<211> 172  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-B9

<400> 10958

ctaataaata cgattttcat cgttcttttg cacatcatta tcagcgcaac gctcttctaa 60  
gtcacgggat tttaaattat caatatcgtc ttgtaatgtg aatacatact cgctactccc 120  
ggctctctaga cttttgagta tattttctat cattgatctg tcttttcagt tc 172

<210> 10959  
<211> 414  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-C1

<400> 10959

gggtcgacac tacagacgat gatgactcgt aatagtttac acacaacgtc caagatgaat 60  
ggcttgccat acaccttggc caagagaagc caacaacaat ggcagcatta acaggcctca 120  
tgaccactt ttgtgcgggc gatgacagct ggctatcccg atgcagcacc agtgacccaa 180  
gtacatccga agttagagat ggaaacggga aatcacgacg cagcagaaat aataagtgcc 240  
ggaataaaga atacaacccg attgagcatg gcgggtaaca ccggattcag atgctctcgg 300  
ccaggtcagc aaaagccgcc tctaaaagcg ccggagatga actgtccagc ctaaacaaag 360  
ttctggacca aatatgtcag atccatagca ccctgataa acctgcaaat cata 414

<210> 10960  
<211> 241  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-C10

<400> 10960

gtacgtatca catcgaaaga cgggacacct ttgccactac caggtggtat cacatttcca 60  
ggttgcttgg tgagatttta cagttttttt tgtagtttcg accgaatctg ttcgtcatgc 120  
gtagagtcca gcagaaagcc ataagcaagc ttaggatgag ttcaccctat ccgaacacat 180  
ctcagccctt ggagaagctc ttctgtatct gcattgatga agttgctgtt gcatcattgt 240  
g 241

<210> 10961

<211> 289

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-C12

<400> 10961

tccgggtcga cgagcacagt atcgcggtta aggtccacac gagtgatata atgatgcggg 60  
gtccggtcac gagcgaagaa atatcgcgag tggtcacgga gcttatgctc ggagaggccg 120  
gaaccggagc ggcaaataat gttgccgagt tatcgggtgt ggccatggag tccgtactgg 180  
agatggggtc ttcgtgcaaa gcaatggatg agatcatccg tgagttgtgt gcaccaaca 240  
tcatgcaggc acacgttgac gcgagcaagg aggagtcctt agatgttta 289

<210> 10962

<211> 276

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-C2

<400> 10962

ggtcgacaca aatctctaga ctgactcgac ataggaccga caagtggagc gcgttttgac 60  
aggcacctgt attatataga ggtcatgatg tgtgtgtttg tgcaccttac tgcatatata 120  
tatacacgta caaggaaagg caagacattt ttgcttgga cgagacggag cttgcttgtg 180  
tgtttgcttt gcgtttgttg ctgtttatac ctaaggccg gtcggatcgg atgttggttc 240  
aattgcacat gtttggtggt gatgaatcgt gcttat 276

<210> 10963  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-C3

<400> 10963

gggtcgacat cacggataag gtgcctgata agcaaagtgt gttcaatcat tacggagata 60  
 cgaagaacat cgagagcaaa catacggata atttcgaagg aggatgttcc aaaggtagca 120  
 tcggacgatg aagagatggt ccagatcggc ggagatcttg atgttgcaag gcatgctctt 180  
 gtgcaaataa ctacaatgct gaaagccaac ttctttgaaa gagaagggtgc tttatcaggt 240  
 tttccacctg tgatcccaga gcaccctttt gctgctagt gtgcccgatg agccaaagta 300  
 tctaagcaga gacagtaagt ctgctgggca cgattatcca tattcgattg gatatcgtgc 360  
 atcagacgat gtgcttcttg ttgaccgtta tgcagattat ggcagct 407

<210> 10964  
 <211> 338  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-C9

<400> 10964

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 atccggccac ttatcacggg gcaccacggc acggcacgat gtggtttcaa gaggtaaccc 120  
 cgaggattcg tggatacatt ccagagatac gccgggccga tcagtcgtga ccttctgtgt 180  
 cctcctcttc ctcggtcggg gtggactggc gtggatcaca ccagcccggg cagtcatggt 240  
 cgtaggtaca ggctgctgca tgctgcattc tccaacaacc tacgtactcc actcagaatc 300  
 tcgtgtcagg aacatgtatc ggaccggtgg ctatgcta 338

<210> 10965  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-D1

<400> 10965

gggtcgacgg agaagaaaaa gttgaacacg atgcgggaga tcaaggtgca gaagcgcgtc 60  
ctcaacatct ccgtcggcga gagcagggat cgcctcactc gagctgccaa ggtgttggag 120  
cagctgagcg ggcagtcgcc agttttctcc aaagcgaggt agactgtcag gtctttcagc 180  
attcgtcgta agtagaagat tgcttcttat gtgacgatca ggggtgagaa ggcaatgaag 240  
cttctctaga gtgggctgaa cgtaaagag tacgagctct tgatgaggaa cttcagtgc 300  
actggttgtt ttgggtttgg tagtcaggag cacattgatc ttggcatgaa gtataacat 360  
caaccggcat ctatggtatg gacttcttcg tggttctgga gcgagctgga taccgcgtct 420  
cccgcc 426

<210> 10966

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-D2

<400> 10966

ggtctagaac tacgcgggtc gacggatcca gcaatgcagg ttctcaggag cgtgaagtat 60  
tgccggcgtc atgcccattg agaagatgca gattttcttt ctggttctct agattggtct 120  
tgataaagct ttcatacagg atgcagctta agctggagtt cgtcgctaag caggaaacat 180  
ggctatcaat tatcttgtat acagaatgtt tgggactgga tcttgtaatg aaagctggag 240  
cagaagaagt ccaggacgga aaattcggct tccacggcaa tgccgacgtg ctcccctcgg 300  
gttctgcag ttcgaggacg gacagcccag gttctcaagc agcaaagtta gcgcacaaag 360  
ttgaactttg ctgctgcacc atcgtcaaca ag 392

<210> 10967

<211> 177

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-D3

<400> 10967

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cactgagccg gcaatccatc cttccgaagc tacgatgtcc ttccaaaaaa gccaaaggccc 120  
acctggttga aacccttgga acccttttaa ggcaatttcc ttaaggactg aaaaacc 177

<210> 10968  
<211> 396  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-D7

<400> 10968

ggtcgacacg ctccgggagt ttgactcgga caacgttcgc ctcgtaagc gctgccacaa 60  
gcccagacca aaggagttca ccaacgtggt cattcggacg gccatcgggt ttcgtcctca 120  
tggggctcct cggggtcctc cttcagcctc aacttcattc caatcaaaac aatcatctcc 180  
ggttccggcg aatccctctt cccaaggtaa ggggcccag gccaaaagga tgttttcaat 240  
ccatgaaggc gcccctggtt tcctaacccc cttaccttaa accaatcaat taaggattta 300  
attgttaaga gaatttcctt ttgttttcca tttgaaacag ttgtattggt agacctggag 360  
cagttttgaa ccttattccg gctagaccgt aatata 396

<210> 10969  
<211> 271  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-E1

<400> 10969

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ggtattacac cacaacggtg gccagacca gtataaacct cgtgtctttc tatgttgcca 120  
gttcgtcgag tccgtccgcc agatcttacc gagctatggc gtcaatcggg aggagggaaa 180  
gacttcgcgc gcacccatt gttccaagct taagggtttg ccagaatccc acatgcggca 240  
acgacagaga gtactccag ggttcctatc g 271

<210> 10970  
<211> 219  
<212> DNA  
<213> Triticum aestivum



<223> Clone ID: LIB31-027-Q1-E1-E2

<400> 10970

gtctagaact agcgggtcga cacgaagacg acagaaggggt atcttttgag tatggcttta 60  
tagaatgctt catgtgcttc acttatatca tttgaacttt ggattgcctg tttctcttca 120  
catataatac cggcatttgg acaatgctct tttgcgtcag ttactatctg ataaagcgtg 180  
ggcatagaat ttgtatacag agtggaagtc ccttgcttc 219

<210> 10971

<211> 333

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-E3

<400> 10971

gggtcgacga agttgttaaa acaggagtga cacctgccga gaagcttctg aatctatacg 60  
agacgaagtg gcagcgcagc gtggaccctg tgttcgagga gttgttatat tgatatatac 120  
tgatatcata tataacttcg gtggacgctg gacaacgtgg acacggctct cagattgtat 180  
ccccatacaa aatcccgctc ccaattctac aagccacctg accagggaaa cctactctcc 240  
ggctctgtgg ctgctaccaa ttttgaacgc ggaacactct gtttgtggcg ttccggccct 300  
tcttttttcg gccagtgtcg acctttttaga gct 333

<210> 10972

<211> 308

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-F2

<400> 10972

gggtcgacgt cgaggcacac taaatgctaa gttttcatca tttagggttt atcgatgccg 60  
aggcacccta ggttgggcct aatcacttgg cactaatcag ttggctctat tgccacctat 120  
gttgggttta tcatctacgg tttatcgatg ctgaggagaa tttctaagtt gggcctaadc 180  
acttggctct attgccacct atggtttaac gcagcaggaa taaaggggca tttgatccta 240  
cttaattaag tactaagata ccccgccct tgcatataa gcaagtaccg catatgtccg 300

atttttag

308

<210> 10973  
<211> 268  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-F9

<400> 10973

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tgagccgaca cgtgtttcct ccagccaatg atggttgtag acgtggaata tccccattgg 120  
tcggggctgt taacgggtta tcggatcaa aaccgagccc gatagctgaa cgggtgtcca 180  
tcacgggtgga cgccacgtgt cggtcaccct tgatgaaagc acttctatga cgcgcgattt 240  
atcgtcatgg aagtggacac tttcgtga 268

<210> 10974  
<211> 365  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-G4

<400> 10974

gggtcgactt tgacgatcag actacgaacg tgcaaggacg ttgcgcctta gcaatcgcta 60  
aaccaactcc gagaggttat tgaccacgcc ggagcacgat caacctgacc acgagggtct 120  
gtttcctgcg agcaaacgaa gaacaagcaa gaaactgaga ttgcaatctg gatattgcga 180  
atataagatg aaagctttat tgatcaaggt ggggttctgt gacgcctttg tctggtcggt 240  
gaacacaaac gaagtacgag aagttgcagc tatggcgaac ttttaatacta aacaaaaccc 300  
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<212> DNA  
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<223> Clone ID: LIB31-027-Q1-E1-H10

<400> 10975

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tcgatctgca accctgttta agagctggat tggacgggtcc aattcaacac ggaactatgt 180  
gtctgttgaa acgtttcgtc tatcaagtgt cgctcgccg cctccggaca gccgacgac 240  
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<210> 10976

<211> 299

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-H11

<400> 10976

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caagtgtac gctcggcttc ccctgaggtc aagcaagtgc cgcaagaaga agtgtggcca 180  
cagcatccag atgatgcca acaggagggt catcaacaag ctttcgaact tgacatcgaa 240  
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<210> 10977

<211> 300

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-H2

<400> 10977

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ttccattggc aggcaaccat tatgggtcct cctgatagtc cctatgctgg aggtgttttc 180  
ttagtgaata tccatttccc cccggactag cccttcaagc cgccgaaggt atcgttcaag 240  
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<210> 10978

<211> 322  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-027-Q1-E1-H4  
  
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 gtaatgtact ttgctgggat tttgtgtttc tccaaggccc accacatgac attccgctat 120  
 atcttaccat aggccttctc caagtcaatg aacaccatat gcaagtcctt cttttgctcc 180  
 ctatatctct ccataagctg tcgtaccaag aaaatggctt ccatgggtga cctcccaggc 240  
 atgaaaccaa actgggttttt ggtcacgctt gtcattcttc ttaagcgggtg ctcaatgact 300  
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 <211> 347  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-027-Q1-E1-H6  
  
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 ggtgttgagc tcaactgtaat taaaatggtc tcttccccgc ctgcggtgtt gtatgtgatg 240  
 tggatatcaat tggaataagt tcctgataga acccctgaca ttggcttcat gggagctttg 300  
 ggccctaata agagttgcct ctgattctga aatttctgat gctgttc 347

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 <211> 440  
 <212> DNA  
 <213> Triticum aestivum  
  
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catggttata cctcgaagag tccagcaatt gtcaatctac ttgagatcat gacggaattt 120  
 actccggagc aacaacatgc attctgccag tttgtgactg gtgctcctcg gcttccacct 180  
 ggtggccttag cctccctaaa tcctaagctg actatagtta ggaagcactc ttcgactgcg 240  
 gcgaatactt caaatgcagc tggagcagca gagtctgcag atgatgatct gcctagtgtc 300  
 atgacttgtg ccaactatct taaacttccg ccatactcga caaaggaggt tatgcacaag 360  
 aagctgcttt atgctatcaa cgaatgccaa aggtcgtttg atctttcata gtgggttcaa 420  
 aactaacata catgcaccag 440

<210> 10981  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-A2

<400> 10981

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 agtactgctg tatcttgtgg atgctaacaa cgattttcag tacatggtac tgttgtccgg 180  
 gtcaaggaag gtttacgccc agcggaccta gatgtgctgg atgttttata ctgtataaga 240  
 ctacgcatca cgtgctgaat gaatgttgct gagactctag tatcgcagtg tgttgacgac 300  
 gccacttgc ttgggctccc gttgttaa at ttgccacgct agctattgat aaagatgggt 360  
 ttcttgttca atttggatct tgctggcggg ttaatttcat catgagagga aatatccgca 420  
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<210> 10982  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-A8

<400> 10982

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cagcgtggtg gaccgcgggt gctgcgggat cggccggaac cgcggggtca tcacctgcct 180  
gcccttcctc cgcccctgcc ccaaccgcaa cacctacatc ttctgggacg ccttccaccc 240  
caccgagacg gtcaacgtgc tctcggcaa ggccgcatac tccggcggca ccgacctcgc 300  
ctaccccatg aacatccatc agctcgccgc gtggcaaccg tagtttcttt gagtgaggaa 360  
ctaagtacct atagctaact agctacg 387

<210> 10983  
<211> 428  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-028-Q1-E1-A9  
<400> 10983

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gtcctaaagg caagcgggcg cgtcagtgtt ggttgccgac atctagcaat gcctctgtgg 120  
cgaccagaga tgtacaacga cgacaacgga ggtagagggt gcggatgcaa agtaaggggg 180  
ggagtgggtg agtggaagga aatgagtccg ggaaggggat ttaatgggccc taggatgtca 240  
gagtcttacg tgactgttac ccggattccc gcagcccccc cccccacgt tgtctccact 300  
ttgcgggaga aagtgcgtcc agaccgcttg gtggaccgac ataggcccat gttggatggc 360  
acaacacgtc caaacctgtt ggtccaaacg gttgcggaga gtcggcgatt ggagatgccc 420  
ttagtggtt 428

<210> 10984  
<211> 337  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-028-Q1-E1-B10  
<400> 10984

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gacggtggct gcatacgaga atgcggacgc tgagaagatt gtccagatca aacgtgccga 120  
gggtgaagca gaggccaagt acccgtctgg cctcggatc gcccgccagc gccaggccat 180  
tgtggatggc ctgagggaca gcgtcctggg cttctcagtc aatgtgcctg gcaccactgc 240

aaaggatgtg actgacatgg tgctgatcac ccagtacttc gatactatga aagagattgg 300  
 cgcgctcctcc aagtcctcgg ccgtgttcat cccccat 337

<210> 10985  
 <211> 398  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-028-Q1-E1-B11  
 <400> 10985

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 agcggtaata gttacaaagg gtacaccact agggccgagg ccgaatctag atacgcccgc 120  
 tatctagcgg gagaggggag ggagcgttgg aggaaccgga tgaagacgag tttcatcgtg 180  
 atgatgctca tegtgatgac cgcagctctc ttctatgtga cggtagttta gatgatcgat 240  
 atcgacttgt aatgtgaaga caaactcgct actcgcggtc tcgagacttg taatataatg 300  
 ttctatcttt gttcgggtctt ttcaattcgg agactaatat gatgaattgt attcagagac 360  
 taatcttcta ttgtattcga tgaatctgtt gttgatgt 398

<210> 10986  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-028-Q1-E1-B2  
 <400> 10986

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 gcacgacaaa atcaagttga aaccaaagtc catactatgt ataaaacatg aaaaatgggt 180  
 taatttgatc ccagaaaggc acacaatgaa atcaaaatgc acgagtagac aagcatttga 240  
 ttttctaaaa ttgaagcttc tattcttcta aaaacttttag agtcacacaaa gcacacacaa 300  
 gacacctttg atggtgattt tttgagggtc ataaacaaat atgtcgtggt gttgtagcat 360  
 gtactttgtt tggaatcttg agtgtgtaga cattttcttt taactctaag accaccggag 420  
 aaagaacacc tcg 433

<210> 10987  
 <211> 181  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-028-Q1-E1-B4  
  
 <400> 10987  
  
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 caccgatggg taagggtgcca ctagtgccat cctccttggc ggagaccctc gtgggtctctg 120  
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 t 181

<210> 10988  
 <211> 374  
 <212> DNA  
 <213> Triticum aestivum  
  
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 <400> 10988  
  
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 ggggacgctg agtattctcc tcaacattga taaatatctt tgtatgtgca tcaactcaatt 300  
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<210> 10989  
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 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-028-Q1-E1-B6  
  
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 actgctgtag gggttctcca cgcgccaata gctatctttt ggattgctga acgtcgtctg 180  
 tgggtgtaatg tgaaagtttg aggccatgat ctgaggtgta attgtggggc cgtgagagga 240  
 gttcagtgtg tgtgtgtgtc tcttgcgtgca ttggccacag gaacatacta cgtatttgta 300  
 aatagctaag caactatggt ggatgtgcac agacattggt gaaatggctg catct 355

<210> 10990  
 <211> 422  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-B8

<400> 10990

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 acagggatgt actatctgag gacacgtgct gctgccgatg cgatcaaatt cacagtggac 180  
 actagtcttc tcaaggataa gaagcctgcy aatgctgagg aggaagagga tctccaggct 240  
 aagatggcgc gcaggtgacc tgctccctga acaaccggga ggactgcttg tcatgtggaa 300  
 gctagattca tccgcgacac cctacgctaa cctatactat cctcttactg ttggcttgctc 360  
 gttgggttcg atgatatatc tgtagtggta atctgcctat gcacgatgaa ctctgaatta 420  
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<210> 10991  
 <211> 249  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-C1

<400> 10991

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 aggaagccct ggtggacatg attgactggt tcaacaagaa cctcaagtga acctaatgaa 180  
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ccacagttt

249

<210> 10992  
<211> 95  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-028-Q1-E1-C11  
  
<400> 10992

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ggggggcacc cgacgttggc acaatgcact caggc 95

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<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-028-Q1-E1-C3  
  
<400> 10993

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tgggttgcta gagtgcaga agcttaaacc ctagtttatg cgttgcttcg taaggggctg 120

atttggatcc atatgtttca tgctatgggt aggtttatct taatactttt gttgtagttg 180

cggttgcttg caatacaggt taatcatatg tgggatgctt gttcaagtaa gaacaacacc 240

caagcaccgg tccaccacaca tatcaaatta tcaaagtacc gaacgcgaat catatgagcg 300

tgatgaaaac tagcttgacg atattctcat gtgtcctcgg gaccgctttt cctatcataa 360

gagtttgtcc atgcttgtcc ttttctacaa acaagattgg gcca 404

<210> 10994  
<211> 443  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-028-Q1-E1-C4  
  
<400> 10994

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cacttggtac gaagctcggc tccagccaat ggatttcagt gcattcccta ctgtttaccc 180  
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 atggtgcccc aggaatccaa cccctatagt tttttcacca aaaaatgtcc cagatgcaag 300  
 gatccgatat gctgttgatc tcatgttcag ccactacaac actttggatg acgagaagaa 360  
 gcgtgtcaag gagttccgcc tatagacatg aaaaagtgtg gacagctcct aaaagacacc 420  
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<210> 10995  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-028-Q1-E1-C5

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 aagccctggc ggacatgatt gactggttca acaagaacct caagtgaacc taatgaattg 180  
 gcggccatcc ttttghtaata agccagtgtc actcttcagg agtcaccacg cgagcatcca 240  
 cggttttatgt tatgggtctta gctatagcct atagggcatg cgtctttgtc tgctgcaggt 300  
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 tgcactcaga taaaatgtgg tatttgcatg ttt 393

<210> 10996  
 <211> 230  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-028-Q1-E1-C6

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 acgatatcga cgtatgcaga toccaaattg aaagcttcat cgaccgctgc aggactgctg 180  
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<210> 10997  
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<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-C7

<400> 10997

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tgagcaatca attatcgaaa ctgaaatacc agctggaata tgaacaaaag agagatatgc 180  
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agctgaaggc tgaggctgaa gactggaagt tgaagtcaga tgaatgtgag acagcaattg 360  
aggaactaaa gaaacagaat gatagtgttg ctgctgcatt ggcaaagctg gatcgccaag 420  
tgaagttaaa ggaaggacag ata 443

<210> 10998  
<211> 200  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-C8

<400> 10998

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gatttcagtg cattccgtac togtttaccc taaagtcatg caacattatg acgatagaga 180  
ttgtggcatt ttcactaaga 200

<210> 10999  
<211> 388  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-D1

<400> 10999

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 acagtttttc gtacctgaga ttcagtctgt tgatgggtacc tatattccag gagcaggcga 180  
 tttacagaat gacggttagt tcatcccacc cgaaccaggc tgagccttgc atagtctttt 240  
 ctgtacatgc tgtgctgaac tcgcggttgc accgtcatgt gcacttgctg gtcttaccgt 300  
 ctattctttt caagtttcga gtcctgtgca ggagtagtca cgctgtcgcc gcaccatcag 360  
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<210> 11000

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-D10

<400> 11000

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 gtgggtggtg tttgttgttg ttgttcccct gattctgatt ctgggctagc aactacatca 300  
 atgtgttctg ctgctggatc aactgggtga gctccggtgg gaaggtaaatt ccggggtcac 360  
 gtctcgagg catctgaagg ttagaaaag atgagattta agaatagaga ggggtctaga 420  
 gagaaaacac taccatattg caca 444

<210> 11001

<211> 395

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-D4

<400> 11001

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gtggatgccc acagcatatc accaccctcc gtcgatgtca acagcatatt accacccgct 180  
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 ccttgtgatt tgtttctcat acgtattgtg taccaacacg atcgtacatc gtggttataa 300  
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<210> 11002  
 <211> 354  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-D6

<400> 11002

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 tttgcattgg tttgtactga cctatctcac gagttcttga tgagtttgtt gtgaatgaag 180  
 cttttgagaa gtagagaacc catgatatga cacgaattat ggagacacac aagctcaagc 240  
 ttggggaatc ccaagtcgcc ccaagataat atttactaa gtcgcaggca tcaaagcgtg 300  
 gggatgcccc ggtaagtatc ccacctttct tctcagcaa ctatcggtta ctac 354

<210> 11003  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-D7

<400> 11003

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 ggtgcttgac aagctcaagg ccgagcgtga gaggggtaac accattgata ttgccctctg 180  
 gaagtctgag accaccaagt actactgcac cgtcattgat gccctgggc accgtgactt 240  
 catcaagaac atgatcaccg gtacctccca ggctgactgt gctgttctca tcatcgactc 300  
 caccactggg ggttttgagg ctggtatctc caaggatggc cagacacgtg agcacgctct 360

ccttgctttc actcttggag tgaagcagat ggtctgctgc tgcaacaaga tggacgccac 420  
cactcccaag tactcaaa 438

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<213> Triticum aestivum  
  
<223> Clone ID: LIB31-028-Q1-E1-D8  
  
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tccttgggga tcacagcgca tcacgttcta ccgagtaatc gttaggtata accctatgct 180  
tcttccatat caccagatta ttatgaacca tcgttgacat caatggacac cgttacttca 240  
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gtt 303

<210> 11005  
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<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-028-Q1-E1-D9  
  
<400> 11005

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catctccatg ggccatcaaa aagaggatgt tatcggtttt tatgttgact tcattcctgg 180  
ccttaagaag ataggtctcc caaaatcgtg gtatcagggg agactgactg gaaaaggcac 240  
tcttggaagt gactcaataa tatgcaggga cggatattct tgggtctcaag cacactacac 300  
agttctacag aactctacct tgggtgacccc gtatgtcgat gaacacaaga acagtctgcg 360  
ctccaaacac ccggagcagt gcgacgactg gattacatgt gaacacat 408

<210> 11006  
<211> 57  
<212> DNA





ggctgtttta aaataccagt ctggaactaa gtcggggcca caagatctgg caataacacc 360  
tctaaacaat tt 372

<210> 11009  
<211> 434  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-028-Q1-E1-E7  
  
<400> 11009

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atattgtcagg tgattttctag tgcaaactac tcaataatct atttatgtta tccagaacaa 180  
aaataacttca cacacttttg tgttttgtct aattgcagggt gtatgggata tttgtacaat 240  
ccacatatga agataaggca aaaggagaag tttaggttct gttcaaaaag tcctctcacg 300  
taacttttgg gccaaagagaa gatagagtcc aagtctctca cgttctggat tcagattcgg 360  
actgcacaga catacctgac tcaaaacgcc aacaactttt tcatacggac tccgaattgg 420  
gtgattcctt tttg 434

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<211> 264  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-028-Q1-E1-E8  
  
<400> 11010

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agcctttgag acagtagttt agcaatgtat ccacgccaac tttcctaaca gctagacaga 180  
tacgtgttcc atttgggtcc cgtacatcaa gatgtccagt gcactcaaga cggcatcgta 240  
acgcatcatc agtttacaag tgat 264

<210> 11011  
<211> 424  
<212> DNA



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<210> 11014  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-028-Q1-E1-F5  
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 gtcctttgca accgtggctc tgaccatgat tgttccatt tgattccatt tctcggacaa 180  
 gttaaagcac ttgtcttcta cagaacaatg catctcctca acctctatct tgatattcct 240  
 tcgagtatta cccctgggat ctcgaggata tcatgccatt gcactacatc ttatgaactt 300  
 ttgatgaagc actaccttct cctgtcattg tcacttcacg ggttctgtct tgtttatcaa 360  
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 tgttgcttat gatttta 437

<210> 11015  
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 <213> Triticum aestivum  
 <223> Clone ID: LIB31-028-Q1-E1-F6  
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 caggcgtgcc gatggtgaag cagaggccaa gtacctgtct ggctcggta tgcgccgcca 180  
 gcgccaggcc attgtggatg gcctgaggga cagcgtcctg agcttctcag tcaatgtgcc 240  
 tggcaccact gcaaatgacg tgatggacat ggtgctgatc acccagtact ttgatactat 300  
 gaaagagatt ggcggtcct ccaagtcctc tgcggtgttc atcccccatg gccctgggtgc 360

ggtagcgac atcgccacgc agatccgtga cgggtcttctt caaggccagt ctgcctctga 420  
ca 422

<210> 11016  
<211> 393  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-028-Q1-E1-F7  
  
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ttggtcacat ccgctggatc tctgctcaga tgaaccgtgt tcgcaatggt gagctctacc 180  
gctacatctg cgacatgaag ggagcctttg tgcagcctgc tttctatgac gctttcggtc 240  
ttaccgtgat agaggccatg acatgtggcc ttccaacatt cgccactgca tatggtggtc 300  
cagctgagat cattgtcaac ggcgtgtccg gctaccacat cgatccttac cataatgaca 360  
aggcctccgc actgctcgtg gacttctttg gga 393

<210> 11017  
<211> 434  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-028-Q1-E1-F8  
  
<400> 11017

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ctaaaactga agatagggca gattgttttg attatgatta cttggagatc tcgtggcttg 180  
ctgtccatgg atcagtcata cctacggcaa catcaactca ttgattctag aggccatggt 240  
tctcgagggtg aactctgaat cgctgatgca attgcagtgg aggctagagc ctgccaaagt 300  
atgcagtaga tcaaaccata taatgcaact gacttctcac atgacttatt tcctcctgta 360  
aaacttcttt ctcatccatg taatctctgc acatctcaaa tctccgtccg ccttaacctt 420  
gattttggca cata 434

<210> 11018  
 <211> 286  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-028-Q1-E1-G10  
  
 <400> 11018  
  
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 gtatggcata aatacaagag ctaggcaacc catcttggcc aaaacttaag tcatatcgat 180  
 gcatataatg gcgaagaaaa tgtacatgcg gaggaataac acatgtgcgg ggcatgaagc 240  
 ccagatagat aattaagctt ctgtgtaaga agcccccagg tacaat 286

<210> 11019  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-028-Q1-E1-G11  
  
 <400> 11019  
  
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 cacaggaaga gcgggatcat tctacacgct cgtgagtgtc ccattcttaa gttgtatcat 180  
 tgattgcata tatcaatatc agaatttgca attgctaaca ccaaggagtg gtcttttagtg 240  
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 ggccaagcga cccttgcgaa cgggagtacc tccattggta tgtgctaaat taagatagct 360  
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 catgt 425

<210> 11020  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-028-Q1-E1-G4

<400> 11020

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tgaagaatag tgtgtatccg gtcgtgcgat tgggcatggg acgcagcccc tagagtacgg 180  
agtcgagctc ctgcacccag tgtttatctg agtcctttaa ggatcgact agtctagggt 240  
taatgctact cattatcaag ctgttatccc attcgacttg accatttggt tgagggtgat 300  
agacgggggc ataataaagc ttgatgcccc gattagcaca ccaagttttt acctcatcag 360  
ctgtgaagtt agagccatta tcggtaatga tgctgtgtgg gacaccgtaa tgggtg 415

<210> 11021

<211> 199

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-G5

<400> 11021

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gcattgttgt gggtagctgt atttgcttcc agtgatttag ccgtgtagca gcagaatgtc 180  
gttacgcttt cctttcatc 199

<210> 11022

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-G6

<400> 11022

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tggtgaggtg gtgcgccgtc tacatggctt ctctctacat cagcggaagt acgtcatga 180  
gctcttggag cagccggca tgcttaactg caagcccgcc gctacgcctg ttgatatgaa 240  
ggccaagctt tctgccacga atggttctcc tgcttcggat gctgttttct atcggctctat 300

cattggtgct ctccagtacc tcaactctgac tcgactggag atctagtagc ccgatgaagca 360  
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 ccgctatatc tgtggcacta 440

<210> 11023  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-028-Q1-E1-G9  
 <400> 11023

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 tctacatgga gagatatcta cagcagccaa atgtgtacat gacgctcttc agcgttcac 180  
 gcttgctaata tacaagtgtg gtggttgctg ccaaattcac agatgatgcg tttttcaaca 240  
 atgcattcta tgccagagtg ggaggaatca gcacaatcga gatgaatcgg cttgaactgg 300  
 atttgttgtt taatctggac ttcaggctga aagtgaacct acggacattc cgggagctac 360  
 tgccctgcacc tggagaaaca tgcaccggtg ttcacagaga aactggctgt tcaggttcat 420  
 tgtgtccgtg 430

<210> 11024  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-028-Q1-E1-H11  
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 acaagatcga gaagctgaag aatcaagtgg acttccagct acgcgtttct ttcacgaga 180  
 tccatgaaaga agaggtgcgg gatttgcttg accctgctac tgttactgct ggcaaagttg 240  
 agaatggcaa tgggcacacc gggaagttat ccgtgcccgc gaaacctccg gtgcagattc 300  
 gggaggggtc aaacggggtc ataacctgt cggggctgac tatgaaggca tcggtggcga 360

ctttgtcaat cttcggatga agtgccgggt cagtcgtccg gatgtgctta tagggatagg 420  
gggtgcgt 428

<210> 11025  
<211> 394  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-029-Q1-E1-A10  
  
<400> 11025

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ttttactgtg ttttcatggt aagatgttag gttggatttg aagggttcata tacttggctc 180  
caaagcatca atctcttgta gaaattagaa ctgagggcct tttaaaatga gtcttgcata 240  
atagtgttgt tcagtgggat gcagaatttt tgtttgtact gattttacgta ctgatttcat 300  
catcatatga ctacaatgaa gaagctgtgt gtataaatat tactaacgga tgatactttg 360  
catcagtgat tttacaccag acgggttcagg gaaa 394

<210> 11026  
<211> 369  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-029-Q1-E1-A3  
  
<400> 11026

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tgctcacaca ccatatatgt tgaacgatgc tagctgatgt accaatgtga tgttgcttgc 180  
ttgattgatg actggttgtc attaactaga aaaaagaata agaaaacctt gtcaatttat 240  
ttgaggagaa tccttatccc attcattaga caaccattac tactacttgt atttgcattg 300  
ttgcttgctt gcttgcttgt agcactatca agtgtgggga aatccagtac taggatgtgt 360  
ggaactggg 369

<210> 11027



<211> 407  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
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<400> 11027

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gtttgggccc tcttgatgga ggtaataccc tacgtcctgc ttgattgttc ttgatgatat 240
gatattacaa gagttgatct accacgagat caaagaggct aaaccctaca agctagccta 300
tggtatgatt gtatgttgtc ctacgaacta aaaccctcag gtttatatan acaccggang 360
gggctagggt tacacatggt cggttacaga ggatgagata tacatat 407

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 <211> 366  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-A5

<400> 11028

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gtaagaagct cttgctaaga gctgagggca ggagaaaaaa gagaaggggg tggctgttga 180
aaatgacttt ttaagcagtc cagtacctcc tctttggccc atttctaata ttatctcaaa 240
tggtgttgtt gctgatactg tggtcagtggt ggctggttgg tgctgcgaca aactgtgtta 300
tatatatata tcataaattg tggtcaagaa ataaagcagg tatgggttga tgggtgggat 360
cgtact 366

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 <211> 393  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-A6

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atcaacgaca tctttgagaa gctcgccggc gagtccgcca agctcgcccg ctacaacaag 180  
aagcccacca tcacgtccag ggagatccag acctccgtcc gcctcgtcct ccccggcgag 240  
ctcgccaagc acgccgtctc tgagggcacc aatgctgtca ccaagttcac ctccgcttag 300  
atagtatgtt ccctgttgtc caagtggatc gatgtttgct ctgtaagtag ctgttcgtac 360  
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<210> 11030

<211> 422

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-A7

<400> 11030

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acgatgctat ctgatgtacc aatgtgatgt tgcttgcttg attgatgact ggttgtcatt 180  
aactagaaaa aagaataaga aaaccttgct aatttatttg aggagaatcc ttatcccatt 240  
cattagacaa ccattactac tacttgtatt tgcattgttg cttgcatgct tgcttgtagc 300  
actatcaagt gtggggaaat ccactactaa gatgtgtgga gctgggacgc tgttgatca 360  
ttaacacttg tagcactaac aagtttgtac tgattgcaga tagaaaaccc tgtgattttt 420  
tc 422

<210> 11031

<211> 244

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-A8

<400> 11031

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 acgaaaggga cacactgtat tagggtgatt gcacctctt gaaggcagtc tgagcctagc 180  
 atcagcttga ctgtacttgc tgagatgaaa ttgcagtagc agctccatca ccagatgctg 240  
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<210> 11032  
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 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-029-Q1-E1-A9  
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 tttcatagtt ttgtttttct ctttcttgag tcagatgaaa caccgtactg ttaaaggggg 180  
 tcaaggaaat actaaggaaa aatttccatg tgatgctcaa ctcaaatcc tacgtctacc 240  
 aatcccttcg agtgaagcca ttggaaatct catacagttc agtcaatttc atcagtgata 300  
 gagacgaagt tcttctgggc tctgaggaat ttgtcctgac tgacgagtta cgaattcgcc 360  
 agtgcggtt gcctacaaag ttacgaacat g 391

<210> 11033  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-029-Q1-E1-B1  
 <400> 11033

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 gctgggggtcg gctggccaga gaactaacca ccctggaagc tgttgcctgg aggaaattga 180  
 ctgttgagg tgagtgagg ccatctcgat gcaacttcag tgcttgctgt gtagggaatc 240  
 gtgtcgttct ctttggcggg gaaggtgtta acatgcaacc gatgaatgac acgtttgtgt 300  
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392

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<211> 450  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-029-Q1-E1-B10  
  
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ttctttcaac cctcttggtt tggaaatcct tggctgtcca gtagaacaaa atgcttgtag 180  
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attttgtagg gatacttgat ttgtgggata cttgatcttg caactgtgac ttgactaata 300  
gagtagaaaa tatcttatta acgaggagag acaggcagca gcacgacgag gattaagggga 360  
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<210> 11035  
<211> 432  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-029-Q1-E1-B11  
  
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gtaagaagct tgttgtccag aagagaagag catcgctgaa tgactttgac aggttcaagg 240  
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<210> 11036  
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 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-029-Q1-E1-B12  
  
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 atatgagtcg tataatcgaa gcatcgggac cctcgctct atcaagtgg atcagagcca 60  
 gggttgctcg tgagaatttc cagttttcct agattagatt tattttctta cctattgtcc 120  
 aggaaaaagc cacaaataag agttagatct agtcatcctt ggtccaagcc agtctgagcc 180  
 tttgcaattt tcttttcatt gcttgcatag ttgaattatc gggttgcatcg tcgtgtcaag 240  
 ttgctagtct tagtgtctag ttcgtttaga gtttcgagtt ctattcacat tagtcacgcg 300  
 accgctgcat cattatctct tctgctgtcc aacacgcac catcaatttc caccacgtgc 360  
 taccaccat tcattgtcat aacaatagtt gaga 394

<210> 11037  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-029-Q1-E1-B2  
  
 <400> 11037  
  
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 ccgtttttgcc tccctgggta gtgggttcta atttctcccg ctctgggcct ttctttatct 120  
 gtttttttat gtctgagttg tttgtttgtt tgtattttta ccaaaggga aaagaaacta 180  
 cacatgaagc ccatctgtac caaataaaat gacgagaaat cctttcggtc cttgtttctt 240  
 ctacattctt cttctttttg tcagaatgag cctcaattaa aaaaattgca cgcacaagtc 300  
 ggcttggtct atgtgtgtgc gcattttggg tagatttggg ttcaattggg gaaacaatca 360  
 gctccgttca tcagttataa canaaacata ggttctcgga acccgacggc ggctacttaa 420  
 naaacgatc ac 432

<210> 11038

<211> 413  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-029-Q1-E1-B3  
  
 <400> 11038  
  
 ggctaatacct acatgatgcc cgcattgcgtc aatatagttg aagcttcgct gaagactcca 60  
 acagacaggc cggcccactt aatgggttatt cagcttcata tctttttctt ttttagtatt 120  
 ttgttttcag atcttggttt ttcttcgagt ttgtttgcac acttttttat acgttttgca 180  
 ataagcggta aacaattttt cagtcacaca ttgaattcat ttattataca atgatttttt 240  
 aatagacgct caacattttat ttataatata caatgaacaa ttttggtata tgcactgaac 300  
 agtttaaata tacaacgaac ttttaaatt acatgatttt aatatacaat ataaaattat 360  
 aatataaaat gaactttttt ataaaacaaa taccaaattt tttctaaagt ata 413

<210> 11039  
 <211> 408  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-029-Q1-E1-B4  
  
 <400> 11039  
  
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 gccccccctc gcgaatggaa gttgcatagc acaataatca tcgccggtga tatgatcgat 120  
 gattggttgg atgatcggat aattgagcgc gaggaacaag gagtggttgc caaggctgta 180  
 aaccgcctc cagttgaata cgcctggccc aacgaagcta ggatctttct cgaacacaaa 240  
 gcatccatag ccatcaatgt cacaacgcc ccatgcattg tactgcatct ggtttgatgc 300  
 aatggtttgg tcaatttggg acgtgcgaat gagcatgaaa tgaccgccgt cagctgaaca 360  
 agcgataaaa cacaacccat cggctggtat gattccaggt cctggaat 408

<210> 11040  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-029-Q1-E1-B5

<400> 11040

cataacaccc taaagagagt catatcatcc atgctacaca cattataggc ggttcccaaa 60  
cagaatggta aagtttatac tccccctcca ccaaaaagca tcaatccatg gcttgctcga 120  
aacaacgagt ggctccaact aacaagagtc ccatggggag ttttgtttgc aattattttg 180  
atttagtttg cataaagcat gggactgggc atcccgggtga ccagccattt ttctcgtgaa 240  
tgaggagcgg agtccactcc tcttgagaat aaccgccta acatggaaga tacagacagc 300  
cctagttgat acatgagcta ttcgagcata caaaatagga tatttatttg aaggtttaga 360  
gtttggcaca tacaaattta cttggaacga cgggtagata ccgtatttag gtaggtatag 420  
tggaactc 427

<210> 11041

<211> 361

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-B9

<400> 11041

gggtccacgc catacactaa attgagtcgt tgtatgggat agcttgggat tcggaattca 60  
gcagctctta cctcaaaagt tcacatgacc gacttacacg ttcatttcga acacttcggc 120  
acgaccgcac aagcgccatt ggataatgcc aatcgtgaga gcatgatcac tcaggttcgc 180  
agctgccaac agtctatcat gtcactgcc ctgtctgcta cgtgatcact catctcgac 240  
gcagtcgctg cgacggctct gctgatagtg tcatggatga cagcccgtac tctaattgta 300  
acgatgactt cagtaatttg cgagcaggta attatgcgga taacactagt caggtgacca 360  
c 361

<210> 11042

<211> 385

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-C1

<400> 11042

gggtccagtt tgacgatctg actaagaacg tgcgaggacg tcgcgcctta acaatcgcta 60

aaccaactcc gagaggttat tgaccacgcc ggagcatgat caacctgacc acgagggctct 120  
 gtttcctgca agcaaacgaa gaacaagcaa gaaactaaga ttgcaatcta gatattgcga 180  
 atataagatg aaagctttat tgatcaaggt gtgggttctgt gacgcctttg tctggtcggt 240  
 gaacacaaac gaagtacgcg aaatttatga agtggcatct tgtatatattt gtccaaggct 300  
 tcatgcaccc attatgggtg cttcaaagcc cctactgcta catatacggg accaattact 360  
 agagtccagt aattggtgca ttggt 385

<210> 11043  
 <211> 400  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-029-Q1-E1-C10

<400> 11043

gggtccacgc tactcactat aatcagtgtt gatacatcag tacagttctt aagatggagc 60  
 ggtgacattt ggcgacggcg gcctctgaaa gcacaccgga ccagtgtgtg ccccaaacc 120  
 gcaagtggct aggttggggt ctcaagtctt agatgttagg cttggctgcg aggtctgtgt 180  
 tattaggccc ggactatcag catcccttca tcaactggat angagtagcg atagatgttg 240  
 cctagacggt ggcttcagac ttactgttgt atttctttgt aaggactttt gtgaataatt 300  
 aataaaatgg ctgcatgcat cgtccaaatg cagaggccgg gggctcttct ccatttctaa 360  
 aaaaaaaaaa aaataaaaaa aaaaaaaaaa cggccgctct 400

<210> 11044  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-C3

<400> 11044

gtaagcacga cgacacgcag gcgcgggcca tggcgtggaa cgcggcgtgt tctcgtccc 60  
 ggccggccgt gctgctcgtc cccaagggca agacctacct gctcaagtcc atcaccctct 120  
 ctggccccgtg cagatccagc atcgtcttca aggtgaaggg cacgctcatc gtcctccga 180  
 gcatgtcggc gtggaccgac aacgatagga ggcgctggat cttcctccag cgcacaccg 240



gcctcacctg caatgggtggc ggcaccatca ccggcaacgg tgagatctgg tggaacaact 300  
 cgtgcaagac caacaaggct ctgccgtgca atggggctcc cacggccctc acgtttcacc 360  
 tctgcaacaa tctaaagggtg gagaacctga aacttggtta cagccaacaa at 412

<210> 11045  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-029-Q1-E1-C5  
 <400> 11045

tattcgctaa aatgagtcac agtaaggaat gcagagagga caagcaaggc atccaataat 60  
 tgaccgactg atatgtatgg attagactat ctggatTTTT tttggtgtta ttattattat 120  
 aagtgagtgt agtactttgt ttgaggagat agaagacaag gtggacaaat catgctgtct 180  
 ccggcctgaa tatcttatcg catgttcgca caccaaataga ctcagcattt ttttatatat 240  
 ttttcgcaat gaaccaaaga atcagcatca gttatggaga cacttctaga aaattataag 300  
 cacgatgtta tagaaaccgg acgctctctc gcattggata gaggctaggc gagagtcaac 360  
 ttgtaggagc tgatattcaa atacaccac acgtccgtcc aactagtata tacaagctga 420  
 atatactttg tccccttcga agaaa 445

<210> 11046  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-029-Q1-E1-C6  
 <400> 11046

cgcgggtcga cgcagagcta tatactttgg ctgaatatga tcctttccat ggttatgaaa 60  
 ctgaaactgt tgtggcacat cttactaagt tgaatgatag agccaccctt ttttactcat 120  
 gataagaaaa ctcgctatta ctttatctaa aattatttcc tttctcatta atgggtgatg 180  
 ctaaagcttg gtacaatact cttactcctg gttgtgtgcg tagtccccgg gatgtgattt 240  
 attacttctc taaaaaatag tttcctgctc ataagaaaca agcttccttg catgaaatat 300  
 ttaactttgt tcagactaaa gaagagagtc tcccacaagc ttgggggaag gctccgcagt 360

tacttaatgc tttgcctgat catcctctta ggaaaaatga aatacttgat accttctata 420  
atggactaac cgatgcttct aggtac 446

<210> 11047  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-029-Q1-E1-C7  
  
<400> 11047

tccacaacta ccgcgcaagt ggtgcctgaa agcacgacga cacgcaggcg ctggccaggg 60  
cgtggaacgc ggogtgttcc tcgtcccggc cggcogtgct gctcgtcccc aagggcaaga 120  
cctacctgct caagtcctac accctctctg gcccgctgcag atccagcatc gtcttcaagg 180  
tgaagggcac gctcatcgct cctccgagca tgctggcgtg gaccgacaac gataggaggc 240  
gctggatctt cctccagcgc atcacggcc tcaccgtcaa tgggtggcggc accatcagcg 300  
gcaacggtga gatctggtgg aacaactcgt gcaagaccaa caaggctctg ccgtgcaagg 360  
gggctccac ggccctcagc ttccacctct gcaacaatct aaaggtggag aacctgaaac 420  
ttgtaaacag ccaacaaatc c 441

<210> 11048  
<211> 432  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-029-Q1-E1-C9  
  
<400> 11048

gtatacccta aagtgagacg aaataagagt tttccttttt ttattatctg tcaatgaata 60  
ttctaattggg aatggaatct cataatactg aaagagaaga gctagcaatt cggaacgcaa 120  
attgcgtttt aatacgtctc actattctaa ttttttagaa gaaatggcct ttattatttc 180  
ttttttatgg ggttaataaa tattaatcaa atttaattta agaaatgaga gaattcagaa 240  
tagctacgag aaagactagt ccaatccata atgatgtacc agaaaatata acatttttat 300  
tatttgacca accatcagga gaagcaaata caaggggtac actaattacg aagactgagg 360  
aagtcgcaat taatgcaaaa acagctaatt tggaaggcat aatcaaaatt ccaaaccctc 420

aaagctacca tc

432

<210> 11049  
<211> 431  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-D12

<400> 11049

gtccacgcaa gacgctaaag tgagtcgtac tagacatgta taacaaatat atttcaacca 60  
acaaaatcac cactcaatat accttaccat gccataccgg acgtaaccgt cccgacgggtg 120  
accggcgata agctcacgcc tacccaaggc agaggctttt cacggatttc tttccggtat 180  
gcatgcaagg cacatgatga tgattaccat caccagtata ctcatttcca acagcaagga 240  
aatcactaat atgcattcat gcaaatgatc atatcacaat gacaataaca agttctcccg 300  
atataaagtg gtgttataaa cgtttcaacc aacacatcaa aaatattatt ccgttgttca 360  
gaatgcattc ctttaacggg gttgaaaagt gggggtgacc cccaatattt ccgaaagctt 420  
ccttctcccc c 431

<210> 11050  
<211> 404  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-029-Q1-E1-D2

<400> 11050

cgggtccaca cgatgatatc aactgccact acatctgacc cagaggtgaa atcgcttctg 60  
agcagcacccg ccgatgtctg gatgcccgtc atcaccgcgt ctgctgatga aaggcggggg 120  
tttgccgaaa caagcgggtga caaggaagag caagagaaat ctaagtaaata agcttggact 180  
gaagcccttg tactcctttg tgccagcctt gttctgcatt ttccttgcat gagtatatgt 240  
tcatacctgt gtgtatcaag tgttcttttg ggcaataaca gaaaatanaa nacatgttgt 300  
tcatgtactt gctattctaa tttgtgtgat ggttgaggta ataaaagtct gccaaagcatt 360  
gtgtcaaaaa aaaaaaaaaa aaataaaaaa aaaaaaagcg gccg 404

<210> 11051  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-029-Q1-E1-D3  
  
 <400> 11051  
  
 ggggccacat aattcgctaa agggagtcgt attaacatct agcagcatgg cagcagacca 60  
 gtttttttttc ttttctgca tgtgtttttc ttttcgtttt tactttcttt agtatggatc 120  
 tatctctctg atcaagcaag aagagatcgg cagctccagc gacatgacga gccgtttccg 180  
 ggtttttatg aacggaacta tttgggtct cgcggaagca aaactagcta gggtttatta 240  
 gtgctgctct agttccgctt gctattcctt tcgcttgctt gtttgtttct ttaaggattt 300  
 tattatcaac gttgtaaggc tggggatgtg cagctagctt cagattcaag cctgccgtct 360  
 cgcctgcttg tacattggta aacagaaccg ctgggtctcca gtgaatgaat gattataagc 420  
 agctactggg atgggtatttt ggg 443

<210> 11052  
 <211> 182  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-029-Q1-E1-D4  
  
 <400> 11052  
  
 ggggccacgc cgctcgattcg acggaggccg gcgtttccgg ggctgaatg gaattgaaca 60  
 attgaagccc caaggaccgc tccatggatc cataggtatg caaattgcac gcacggagtg 120  
 ttgattgtat ttgcagatta tgtgtgtaat ttactcaatg aganaaaata gcgtgctaca 180  
 ac 182

<210> 11053  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-029-Q1-E1-D8  
  
 <400> 11053

tcgcgggtcg acaccttcca caaacgtgac acgatctagg gcagcgctgg ggaccggcaa 60  
gtcgcgagtt cttacctga aggcgtcatt ctggcaaacc aagataagga taacttcctc 120  
gtgccttact ttcccgagta agtcctcccc tcaactggcc cgtaacatat gaattcttac 180  
atttcgatcg tttttctttt aacattccat gttttctgca gtgacacacg ttgcacgctc 240  
atcctcctaa gcccacaaata ttccatggcc acatatttcg acccggaaccg tcagtcgaac 300  
gtagactaca caaatgtcaa gaaggttctt gatgatgtcc tccccggcta cgccaaatct 360  
ggaggcacct tcactaggcc tatttgtaag tacggcaagc acgtgttctc ccacaatacg 420  
acg 423

<210> 11054  
<211> 389  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-029-Q1-E1-E1  
<400> 11054

ccgggtcgag accgtgggct ctgaagaaaa tgctggggca tctccagctc aaatacaaga 60  
accctgtagt catgatccat gagaacggag ctgctagcat cgcggatcct tctgctggga 120  
acgccccga cgacgagttc aggtcgcagt acctgcagga ctacatcgag gcgaccctcg 180  
aatccagcag gaacgggtcc aacgtgcagg gctacttcgt gtggtcattc ctggacatgt 240  
tcgagtatat attcggctat cgcattgggtt ttggcctcta tgggtgtggac ttcaactctg 300  
aggagaggac gaggtaccag aggcactccg ccaagtgggt caccggcttc ctccgtggcg 360  
gcgacctcag gccgggtggct ctgccccgc 389

<210> 11055  
<211> 397  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-029-Q1-E1-E10  
<400> 11055

cgggtccaca acttacagca aatgtgaacg atgcagaaat agtttcagta tgccatgcag 60

gcaaagaaaa ccaagtcaat tcattgcaaa acatgttggc tgcaccatcg tcgagttttc 120  
cagtcaatgg ccattcttct aatggcagta ctgaaaaaac tgatatgaca tgcctctttg 180  
gtcccaaaac aaaaactgaa agactcgagt atttaacccc agtgtcaaag cacagaagct 240  
taccagctg tagcaatgat cggaccagtc agcacagctt ttctttctcg aaaggacatg 300  
gtttagagag aaaganaatc aagccgctat ggacttcaac anaaccaact gcagctgatg 360  
tcagtgacaa tttccngact aaaataattg cgagata 397

<210> 11056  
<211> 439  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-E11

<400> 11056

gtccacgtta cacactatac tgagtcgtag taacctggaa acttgtccac ttccaaggctc 60  
aggcccgtgg acttggagcc cgccatggtc gggtcctgca ctttcacgat cagcagcttc 120  
tccaagctta aggcgacgct gcggagcttc gagtgcgcct actccaaacc cttcagcata 180  
ggcgggatag catggttcct caagctctac cccaatgggt accagcgcga cgaggaacgc 240  
gtgtccctgt cgctagtcg tgaacgttac aaccaaccgg caacgactgc ccagttcaac 300  
tttgagtttg aggggatcgc caattatgag tctagtaaga taacacacat tttcaatcgt 360  
ggcaactacg aagtcgaata taagctgccg ccgctcagca cttctgcaaa acatgaccct 420  
ctcatcatcc aatgttgtc 439

<210> 11057  
<211> 296  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-E2

<400> 11057

ttaaggacgt cgcgccttag caatcgctaa accaactccg aaaggttatt gaccgcgccg 60  
gagcatgatc aacctgacca cgaaggctctg tttcctgcag gcaaacgaag aatgagcaag 120  
aaactaagat tgcaatctgg atattgcgaa tataagagga aagctttatt gatcaagggtg 180

gggttctgtg acgcctttgt ctggtcgttg aacacaaacg aagtacgcga agttgcagct 240  
atggcgaact ttaatctaaa caaaacccaa agtctaaacg atgtcctaag gggtgt 296

<210> 11058  
<211> 395  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-029-Q1-E1-E3  
<400> 11058

cgggctcgaca ctatgacaga aagtgactcg tcataatcgg gaagcatagg tcctattcat 60  
catccagtagt gtaaagtaca ccagatcgaa tttatgaact gtgactgcca tcacagtgtg 120  
taagtatgac taagaggaaa tttcagtcag ttttctatc atcagactgc ccattaatac 180  
ttacaaaaat tctcatgtga tagaatcaac aagtcaacat gtgcattttc aaataattag 240  
ctcacccaaa acccaacaac ctatgttctc agccacccaa caagtgcac tcaacgttat 300  
acactatagt ttacgtgaca gctcaagata catcaaccac tcatatagtc ctctaagact 360  
gctaacaggc actacgttta catgatcatg acatt 395

<210> 11059  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-029-Q1-E1-E5  
<400> 11059

gggtcgactg ccaccaaagc gatatccatc atctcatcga aagacgggac acctttgcct 60  
ttatcaagtg gtatcagatt tccaagttgc tcggtgagat tttacagttt ttcgtagttt 120  
agatcgagtc tgttcttcat acctacagtc cacgaaaaag ccacaaaaaa aattaggggt 180  
agttcatcat atccgagcca atctgagcct ttgcataatc ttttttaggtt tttgctttgt 240  
tgaatttgcg gttgcatcgt cgtgtctagt tgctggtctt agagtctagt ctttttagagt 300  
ttcgagttct ggtcataagt tgtcacgcca ccgccgcacc atcatcatcg cccctgccat 360  
ctaccaccac cgcttatccg ccaccgcttc gaatccgtat ccatatacca ccaccgctgt 420  
catataccac catcggtctg catct 445

<210> 11060  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-E6

<400> 11060

ctcgcggggtc cacatgctgc gcaacacgcg gtcctgctac agaaagccgg ggcgtcccgg 60  
 gtcttacggg gggcagcagc cgcagcaaca gctccattg aagcgaagat ctttgacagg 120  
 atcgtccttc gcaacttgga gtcaccacaa gcagggcctt ccacatagaa gcaaaggatg 180  
 atgagcaaac agcactccta cttttcactg gtggagaaga gcagctgacc tatttattcc 240  
 cccatatcca tggcttcggc atgaaccaga cgacatgacg gctatcgtcg tcgaattttg 300  
 gcatttcctc ctagagaact tggttggcat cttgttgctt ccgctgagtg tgccttgcca 360  
 atttgtgtgg tagagcaagt taaggtaa 388

<210> 11061  
 <211> 354  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-E8

<400> 11061

gcgggtcgac gttcacatga caacactatc gggttgacaa catacatctc atcaaaatat 60  
 cgaacgaata ccaaattcac atgactactt atggcaagac ttctcccatg tcgacacctc 120  
 agaggacagc gaagcatgcc cgctgttgc gtgatatgct tggaccgctt aaatcacatg 180  
 aactcatggt aacataaaag atcatacttg tttgatccat tggttgcgca tatgctctct 240  
 gattcagatt aactattggt ctcacgctg actttttggt gatgaggata atgctggctt 300  
 ttgtgcgctc tataaagtct actaccctgc gtccaatgta ccatacaatt tttt 354

<210> 11062  
 <211> 273  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-E9



<400> 11062

cggggtgcaca gcgttgatga accaccgtct cttatactac acagactoga tagactcgct 60  
gacttttaaag cctgtgtaat gcgtggcaca cgccaatgtc gagtttaatt gtcgtagtct 120  
ccggccgtga tgctcgatc gccaaagcaca cacactgccca ttgcatgaag tcgtccattg 180  
cgtagactca tagtgcaaag ccgtgatatt gggctctggt gatggacgct aaaccgagta 240  
cagtgtgtgt gtgtgtccct tgctgcattg gcg 273

<210> 11063

<211> 420

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-F1

<400> 11063

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tggaagttca atctacatta ttgggaaaga ttcgtgaagc tcagaaggat gacaaggaaa 120  
ttgcggagat aaaggagaag atgagtgaag gaaaagccaa aggttttctg gaggatgagc 180  
acaacacctt gtggtttgag gaccgtgttt acgtgcccac taatgcggag atcaggaagt 240  
tgatacttca ggaggctcac gactcgccat acttgataca cccagaaaac accaagatgt 300  
atctgccaca gccctagaat attgtttgta aatagttgca tcttcatcca ggcacatat 360  
ttaaatttct aaaacatgag ttgaggattg ttggaaaccc tcaaaaccct aaataaaaaga 420

<210> 11064

<211> 355

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-F3

<400> 11064

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gagcgtgagc cttgttcttg gcctcctgct cgccaccacc gttgcttgcc atggtgagc 120  
ggacatccca gcaactgagc ccgagtccta ccgtcccat aacgtctttg ggttcggtgg 180  
tttctaccct ggcccgctcg tcaactgggt gtttcgggg ccaaacggcg tcacaccaca 240

ggtaggcttc ggcgggatgc cgggctctag ctccttcctt ggcactagtg gctcgtccgg 300  
cagcagtggc gtggtcggca ttcattggtgc tgccaatccc tgatcgtgtt gttgt 355

<210> 11065  
<211> 432  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-029-Q1-E1-F4  
  
<400> 11065

gggtccacca gaagggcttt ccacgtgaag tcttgtctat ggcactgat gcaccgtctt 60  
gatttgttct atgtgcatca aggacaagta aactatctag tacaacatgc tttttcaagg 120  
acaacaagta tactattgtc cttcgttaatt ggcgatacaa acttttttct ccatcttggc 180  
cgttcgaggt caaaagattc catggagtgg ttaagccagc tcgctaggga catggaaatc 240  
actagccaaa ctaccacggg actgccgtcc acgccgaaaa ctgtttgtct aattaaagca 300  
gacagctgac tagttaacat ccttaatcgt ggctggtgtt ggatgcctta aacttaaagc 360  
tggcaagggtc atggcgacgc cggcctaatt agttgatcga gatctagaag taatcaaatg 420  
cgcatgccga ac 432

<210> 11066  
<211> 321  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-029-Q1-E1-F5  
  
<400> 11066

ggccgacatg actagtcgta aaccaaggc ggcacaaact tataggaaca tgcatacatg 60  
accagcaac gaaccgtgtt gatcatgaac atatgaacgc aactcgtagg atgctgcaag 120  
gacttaaagg aataacgact gtcatttccc tgaaaggaca catacattaa cgaagaagga 180  
cacatgccgg gcagcctaag tggtccggat cagtagcaag ctaccatgga tcagtggaag 240  
cactatgaca cattttccca tatgagacgc tattaagaat aaacaactac gttgtccgat 300  
cccacacaca ccaatcattt c 321

<210> 11067

<211> 350  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-029-Q1-E1-F6  
  
 <400> 11067  
  
 tcgaccgaaa tagagccac agagagggtg acgatagaga tgtaccacc agcagccaag 60  
 tgcattgtctc cggaccagag tgtttcagca gagccatcag agctgtggtg actcctccca 120  
 acttcaggct ggcgactgga gtcagcaagt tcaacggtga gtctaagccc gatacttggc 180  
 ttgaagacta ccgagtggct gttcagattg gcagcgggaa tgatgatgtg gccatgaagc 240  
 atctgcctct tatgttggaa gggtcagcca gagcatggct gaatcagttg acaccagca 300  
 gcatttacac ttgggaggac ctctcccgag tgtttgtcag aacgttcgaa 350

<210> 11068  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-029-Q1-E1-G10  
  
 <400> 11068  
  
 cacgggtcga cgtggcacgc gtatgatgat ccttgctact ggattggcaa tggtaaccgc 60  
 cgttatgcat gtattcatca tgttctcgca ggccgagcgc tcaagctctg cgaaagcagc 120  
 aagggaccga gtgaagaagg attgatagct cgtgtgaaat tcagtctata ggggaactgc 180  
 caatttattg tgttcagaat atatgtagac acaggctcca tgggtcaaata ctagtatgtc 240  
 cttgttgtcc tcggtgaagag cttcaggaat tttgtgtggc gagaactgtg agctttcttc 300  
 cttctttctc tactttgtaa tgacttgtaa agatttgctt tgccatacca ggaatcgctg 360  
 ctcgaattta tcgaagcttt tttttatcta aaaaaaana aaaaaaaaaa aaaaaaagcg 420  
 gccgctct 428

<210> 11069  
 <211> 370  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-029-Q1-E1-G5

<400> 11069

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aacgtctgggt gacgccaata caggctcaga gcatgaacct cgactagctc atcgtagtga 120  
agaacaacag ggccatgcca tgtgcggaaa gcctactgca ttccttccat gtaataaata 180  
gcactggcat ggctgatttt ttaaacgagg gcgctgattt atacagtttt ttcttcttat 240  
gctgcaacaa caacatcagt gtctatcaga tgagagcatg ccatgtacag cggggtagat 300  
gttctcactg gatttctacg tcggcacgac gacatcacga attgcaacag cctgcctgtc 360  
gtcatcatgc 370

<210> 11070

<211> 267

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-G8

<400> 11070

gggtcgagac caccgccatc gccaaagatcg cgctgtttga cgccgagttt atcacaggga 60  
gggtgaaggt gattctctcg ggtggaggct gcggggagtc cgtgatgtat gtcacccagt 120  
cgtccttcag ctccagggct tgggtggttac ggaacaatga cgccacatgt ccgtcagagc 180  
ccatgctgag gacgatgaga tcaaacttgg cgcagtcctg gctctccgag actcctatag 240  
tgcggatctt ggacagctgc ctgatga 267

<210> 11071

<211> 364

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-G9

<400> 11071

gggtcgacgt taaccactca cccagccat cgaagtacct cacaagttat gtctctcctt 60  
tctctgacac aggatgattg atcttctat gtcattacgt cagcttagta catccgtatc 120  
gccctccatc attcatgcat gcctcctgat tcagtctttc acagacttgt gcacagacag 180  
gcagttatcc ccacacgac tgatattgca ggctgtcgct ccggttgctc atcaagccta 240

tcacaccatt tgttggcagc agtgctagta ccactccctc catgagtcaa tctctgtacc 300  
tctccgattc ttactcatct cgtacacata cgcattggatg ccgatcgatc tgcgtaata 360  
catg 364

<210> 11072  
<211> 435  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-029-Q1-E1-H1  
<400> 11072

gcgggtcgac atgagacgat agctggagtc gtaattattt tcattcattt gcgctctata 60  
tcgatcggcc tattttgttc atttcctaata atcaagtaac taataactct ettgttcatt 120  
taattttctt tgccctcgtag cgtttggaga cggttcgtag atacaaaggt cggatgaattc 180  
aaaaaagagc tagaattcaa aagggcaaag gctaagaatg gtgaggatat tcagccagcg 240  
gggaccaatc tatgtgcata ctatgtctgt gagatgatcc ggagatacac ctctgagcgg 300  
gttccgagtg ataccaatgc tcagaggaat aacctccgga tgatgcttag tccagaagct 360  
cgttccgac cacttcaaga ggaactanct ggatggttca agagggaagt cctccatcct 420  
aaaggagaac accat 435

<210> 11073  
<211> 432  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-029-Q1-E1-H10  
<400> 11073

gtcgacgccg atcacgatgt tgggtcggca ttagccgacg tcgatgcggg aactacttct 60  
atatatagtt gagtaaaagt agttttatta attaaatcaa ctatctagtt caactactaa 120  
gcacttacta taaataaata agtagtactt actaaagaca aactacgtcg atatatagta 180  
gaataagtta ggttattaaa ttaactagct agatcaacta tagatgaact acttcttatt 240  
tttttccttt ttctaaatac tttgaacaaa aaaatcatta aaattctatg aacaaaatta 300

attactacac atctagtcta aaaaaaatc taatctagca acaaaaatct atgaactaca 360  
 tatctaaatt actacacatc taatcgaaca aaagaaatct aattaatcta acagaagaat 420  
 ctaacataat at 432

<210> 11074  
 <211> 79  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-H2

<400> 11074

gggtcgacgc tgatccatag atggagtcgt ctaaatcgat tgatctccat ctggaccgat 60  
 ccatcacgtg tgatacctc 79

<210> 11075  
 <211> 359  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-H3

<400> 11075

gggtcgacat aaccgataga ctaacctctg acgtgccttg cctacatgac catgcaagat 60  
 gtcaacgccc ttcctacttt taaccacat ggtggggcca taaccacag ttccacatga 120  
 tcgaaacctg actctccaat acacctgtt gtggaagtta ttcctcgcg c ttggcttcat 180  
 atttaattca gggccacctt tctagtgtc tattctggta tcagacgcaa tacttactct 240  
 cgctgtctctg aaaccctttc tcactctggt tcagacttcg agcagctatc tatccacttg 300  
 gcacctccta ttgtaccttc atatcttact cttgatgtat tcgatatggt caactcgag 359

<210> 11076  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-H4

<400> 11076

cacatgtcaa gcaggcaaca aatgacatta atgcacctgc aaggatgagg gtggctgcaa 60

acgagaaggc ggaggtgag aacattgtcc agatcaagcg tgccgagggg gaagcagagg 120  
ccaagtacct gtctggcctg ggtatcgccc gccagcgcca ggccattgtg gatggcctga 180  
gggacatcgt cctgggcttc tcagtcaatg tgcctggcac cactgcaaag gacgtgatgg 240  
acatgggtgct gattcaccag tactttgaca ctatgaaaga ggttggcgcg tcctccaagt 300  
cctcgggcgt gttcatcccc catggccctg acgcggtgcg ccgacatccc cacgcagatc 360  
ccccaacggt cttcttc 377

<210> 11077  
<211> 307  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-029-Q1-E1-H6

<400> 11077  
gggtccacaa ctttcaccgg taatctgtat gcaacgtcat aggaagaaaa actatcaaat 60  
atgtgaagga gcagtaaaca aaaggatctt aagctacatc tacatatatt acataaggat 120  
cttcaattat gggaaacaaa aagatatgca aaaacacaca tcaatgtaat cactggtttc 180  
aaccacaata acatatccat aaactttccc cccaaaaaaa aaaaaaaaaa aaggaaaaaa 240  
aaaaccggcc ctccaaaaga ttcaaaccta acttccccctt caatgcaact taaaaccctt 300  
ccaaaat 307

<210> 11078  
<211> 414  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-029-Q1-E1-H9

<400> 11078  
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tccttggtag atctcgcagc cgaagcttgc ggtctctgtc ggctatgaaa tgcaggaggg 120  
aacaaggaga acgtgtctgg actccaggct tgatgttcta aagaggaaac cttgttttag 180  
tggtgggtgg atgataatga tgggtgggat ccgactggat gcgacggtgg aaccgaactg 240  
aactgaggtt ggggtgttgg gcaagctcgc ccacctggcg ccgaaatgaa acgcggtcgc 300

tctcatctcc atcagatcga ccagaatacc atctcatcaa tcagtaagga aaattatcgg 360  
ccggaagata ctacacactc tgaatctgaa tagagaaaat tcaactttcg ctta 414

<210> 11079  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB31-030-Q1-E1-A12  
  
<400> 11079

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ccgaagcccc ctatccttga gcttgacaag ctcatgtggc atcctggacg acgtcctcgc 120  
catggcgccc aagcctcgca accacatcgc cagctgccgc caaagctgat catgttggca 180  
gaccaggatg aggacaaccc ataccgcacc caaggtagta atttcagtca tgcttaccaa 240  
caagtttttt tctacgaaaa caaaactttt gtttctgggc agcatgttcc tcccgggcat 300  
caacactgtg caactttgaa tcaaaggtg aggtanctag ctcccttatt gttgttttat 360  
ttgattttcc taaggcatta catacataat tgtaacccgg cctaagcttc ctagaaatac 420  
ataagtctca ctaggaagtt tggat 445

<210> 11080  
<211> 433  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-030-Q1-E1-B11  
  
<400> 11080

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agttgagcga gagattggct ccctgcaaat ggaggagaag aagctgggtg ctgagatcaa 120  
gaacactgcc aagactggaa atgaggctgc aacaaaaatt ctagcccggc aactagtcag 180  
gcttaggcaa caaatcgtca atttacaagg tacacgggcg cagatacgtg gagtagctac 240  
tcacacacag gcaatgtatg ctggaacttc aatatctgct ggaatgaaag gcgcaagcaa 300  
agcgatggca gcaatgaata agcaattgga accaacgaag cagatgaagc agatgagaga 360  
attccagaag caatcatctc aattggacat gacgcttgag atgatgtctg atgccattga 420



tgaaacacta gat

433

<210> 11081

<211> 451

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-B9

<400> 11081

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gatactgaaa ggaaaaatgg agtgaaagtg ctactgctcc agttttgaac ttcttattca 120  
gtcatgctat tactgagtga aaaatggagt caaagtgtat tgcaattgat ctctcttaga 180  
ccctggcaat cctctatttt tatcctttgt ttgcttgtct tttgggtctgt aattcaagaa 240  
ctttgacctt cgtaattcgg tttttgggta atttattatg cccgggtacaa acctttaaat 300  
ctgaagaggc ttctaatagc aaaaaaatgt gcagccgggtg tgggtctatat gtcaattcat 360  
gtatgaaaat gtgcattcgg tgtgggtgtat atgttattcg tgtacatgta ttatatgtgt 420  
gaaaaaat tctgtatatga tgagatgatt g 451

<210> 11082

<211> 447

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-030-Q1-E1-C10

<400> 11082

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catagagtan ggtgtgcatg tgtacattca tagagggtgag tgtaatcgcg tatgtatgag 120  
cggttgcatc tgtactgtgt taaaaaaact cctactatta tacatgcacg tagccaattc 180  
atcctcggag accatgcccc actcaggaca tgcaccatcc atcaacaaaa tcggagaagc 240  
agtgcagccc gccataaccc cccaattatc caacatgggt acacacatta tttgatttta 300  
gcctgcaaaa aaaaatgcag gagtcccgat agcatggaag catcgatttt tttcactgaa 360  
gacaccaagt gaatacacca aaaaataggt caaatgtgaa agggaaaata acagggtaaa 420

taaacttttg aaaagaccct ataggag

447

<210> 11083

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-C12

<400> 11083

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cacaaacatg tctgcctctg tcatggcgtc tttggttctg ctgaaaccat ctccctctcc 120  
actgttagga cgagcgaagc tccggggtgt gcgaccatcg gcgaggccat cgctgctcat 180  
agtagccagc aagaaggcga agaaggcca gactgcccaa ccctacgggc ctggtggtgg 240  
agtgggtgtc aaggaaggcg tcgatgcgtc cggaagggcg gccaaagggga acggtgttta 300  
ccagtttgcc gacaagtatg gagcaaactg tgatgggtac agcccgatat atacaccaga 360  
agaatggtct ccaagtggcg acgtttatgt tggaggaaag acagggctgt ttctctgggc 420  
agtcactctt tctggaattc tgttgggt 448

<210> 11084

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-D10

<400> 11084

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gtaccgccac tgcgacggga agctcgtgct caaggtcacc gacgaccgag agtgcttgaa 120  
gtttaagacg gatcaagctc aggacgcaa gaagatggag aagctcaaca acatcttttt 180  
cgctctcatg actcgtgggc ctgatgctga tataagcgag gtttcaggga aggaacaggc 240  
ggagcagcag caatcgaaga agggacgggg caggaggcag tagtatcatg ttctggattt 300  
ctttcagaaa gatcacaact gggagtgggt ggtggatatt ttgatggact cctgttagtc 360  
atgttacaac tgtgagtggg ggggtgtcta agagtggcaa atagttttca gacaatgtgc 420  
gccatcttcg gatccttttc ct 442

<210> 11085  
 <211> 375  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-030-Q1-E1-E10

<400> 11085

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 atgacctcgt ctgaagattt gcaggaggcc ttcgacgtca tgggggcgct gccagacgtg 120  
 ttctccagtg ggtacacgaa atgcgatgat tttgtccggg cagccataca ggctgggagg 180  
 aggagctgat cagccacaac tcctctccac tgtttgtggt gatataaggc acgacccttt 240  
 ttgttttgta tgatgagata tgcagcttat gtgtgtaaac agtctagcac ttggacatca 300  
 gctggttgaa cttgtataat attatgtcgt ggaattgccg gccttcattc tcaacatgct 360  
 ttgctcctgc tgcca 375

<210> 11086  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-E12

<400> 11086

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 atagcatgca gacccaagtc cgtttcaaag gagctgtgag ttgggtttgc tacggatatg 120  
 tgccatcaca tcagagtcca gtaacactaa ttcagacagt ggcagttata ctgcagtgca 180  
 gagcttccac caacatgttg ttgcagcagc atagcagagt atgcatgctg tgttgctggc 240  
 tgttccgcga tacacatctc cagtttagcag cactgaccca gcaccaatcc gatcatgccg 300  
 ggttcctctc aaaccagggg cagtgcagca ggaaggcc cgacaaatgt gtgttgggac 360  
 aaggccatgt gatgcgtgcc gctatc 386

<210> 11087  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-F10

<400> 11087

ggtcgacggg cgcctctaaa gaggatcgac caagctgaga aggcaaagac agaggcttac 60  
atactogagt tggctcgtgcg gcttcaccac cttgttagcc agagcaaccg gccggcaaat 120  
gttaaaaaag ccagtcctcat gtaaccatca tcaggatcatg gggatgatgac aagcgcatta 180  
cacacaagtc atggcctgac aagagcagac agaaagccat tacgatctgt ttcgttttca 240  
ttgttgctag gttgtataga agggggaact gtgtctgttc ttaccaggaa ggacttgaaa 300  
cctgatatta ggtagggaaa taacaagagc ttctcctttc atcttttggg ttctttgaga 360  
ggctgggttc taattccatc tcatgtatgt ggtgttgaca ttgtttaaca cctcaaaaaca 420  
tcgtggctaa ataacaaact taatacta 448

<210> 11088

<211> 456

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-F12

<400> 11088

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tgcactacca aaagaccttg catcactatg atcataatth tatgagattt ttcaagtcca 180  
cacataaaac atagcattta taaagtagat gatcgttatc acttaaattt ctagaattgt 240  
tgctgggtggc cggttgaaaa tttggtgtat gggagggaaa aaagcaacc attgatgagt 300  
gggtcccacg tgacaagaaa gattctatag gttgctatta caaaaaatca tttcaagatt 360  
tttgtattta catatactga cactagtaga aaacgggggt tacgttcggg ccagataagc 420  
ccattagtct tggttccgtc acgaaccggg acccat 456

<210> 11089

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-F9

<400> 11089

ttcacgggtc gactgtccgg acgaaaatgc cctatcagcc ttcaaacaca gcattcggga 60  
tgaatggcta gacgccatc tcggacaaga aaagccagag ccaatggat cccttacggc 120  
actcatgacc cgcttttgcg caggcgagga cagctagccg gctcgtagca aaaacacagc 180  
cagtgaggca ggccttacag aggccaggaa cagcactggc aagctccggc gcaatagaca 240  
caaacgcaga agcaatggcg acaacatcaa agacaccaca gtcaacgccg gattcagtgg 300  
ctccaagtcc ggccaacgaa agaaacccta caaaagaaat aacaaaggac cttccagcct 360  
ggaccgcata ctgcaccgcc cgtgcgaaat tcatggcacc ccggataaac aagacaatca 420  
taccaacagg gattggtggg tcttcaag 448

<210> 11090

<211> 427

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-G10

<400> 11090

tccctaaact gaatcgtaga aatcaggaaa agtgggtcac tttcttatcc tttggtaaaa 60  
cgataagctt gaatacaggc atcataatcg aaaaacagat gaccaaaaaa gagatgttaa 120  
ctattcatga taacaaccat catggcaaca aacacattac accactgatc agctagtaga 180  
tctcacaagg tcagcactga gcaagtcttc attatcttta acatagctct tgaaatctct 240  
cgctacactc ttcacattaa gtcattatt ttcagcaccg tatgacgtac aatcaagcac 300  
aagctgcaaa taagccaaac cataaatata caggggaaaa ggataaacia agcaatgtat 360  
tatcataact cgtaaaccia aatatgcgtt cctgtctaag agaaacacia gatctggctg 420  
gttaccg 427

<210> 11091

<211> 428

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-030-Q1-E1-G11

<400> 11091

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cagtctgcac atctgcgtga cgcttcaaca cacggctatc tatgaggaat tcctcaagga 120  
cctcgaggat tccgtggaca cagtgaagc gaatccaggg cctatcagtg gggggatggc 180  
tcccatctat ggcgcggctg ggaagatgcc ggacagaggg acggtcaagg agttgcttgt 240  
ggagttcatg gacagctctt gctaaccatt gactataccc cattggttat ctctctgtaa 300  
catgtatgac tgttgtgtga tcttctatat ttggtttggc tgcaaacag aaggcacaca 360  
atgcctccaa tacagacatg tatctatgta tcagttacat tggttgcaat gaagttacat 420  
tttcagcc 428

<210> 11092

<211> 396

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-G12

<400> 11092

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ccccgttggc ggggccaaagg cgggcgattc cgacagtcac cgggttagtg gacttggttc 120  
ttttttaatt gcctgctact tctctacact tttcccatgt tcatgtcaca ccatgcagat 180  
ccgcccttga cctgatgttg acggcgacgg tggaccagac catagagtgg gagccggacc 240  
ggaccacaga ggacctcgtg acctggcaga ctggttgcaa acctgacgtc acggagcgtg 300  
ccgtgtggcg agaccgggag ctggcaatga aagaggcggc ggagcatgca acgagagacg 360  
aagaggcttt agcttacgcg cgtgatagag ccgccc 396

<210> 11093

<211> 435

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-030-Q1-E1-H10

<400> 11093

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tcgtcgccag cagccacgat ccgccatagc cggccaaccc cgctgcatca aactcctttg 120  
 tggagagatc ctccttgccct ttgcaggagc cacatgggtct tggcctggcg gcgacgagag 180  
 ggctggaaaa gttggcggcg agggatangt ctgacctgtc gtgtgtggct atgcgtgcaa 240  
 attcaaagaa atcccgagtg ggactactaa ttgactagaa tagagttttc tccctttttt 300  
 tatcatgtat aagggtgcact ggaccaaagt cgcaactcag tagaaaaatg ccgattcgat 360  
 tgaattgtta tcaagacaag gcaatattac tattttcagt agtaagaata attccaggca 420  
 gtagtgtcat caaga 435

<210> 11094  
 <211> 372  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-030-Q1-E1-H11  
 <400> 11094

ttagacataa ttattttattt atattggtgt taaacctact gcattcaaac ttctctatgg 60  
 tttataaact cttttactag ccatagattc atcaaaataa gcatacaaca cacgaaaaac 120  
 agaatctgtc aaaaacagaa cagtctgtag taatctgcaa ctaacgcaaa cttctggaac 180  
 tccaaaaaaa tcagccaaaa tacgacgacc tagccaattt gtttattgat cagcagcaat 240  
 tggaatcaat attttatcac gttctggtgt tttttaacaa ttattttcat gaacagaaag 300  
 tttctgggaa ttacagcaag atcaataac tatcatocaa gaagatccta taagtttaac 360  
 ttgggaaaaa ca 372

<210> 11095  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-030-Q1-E1-H9  
 <400> 11095

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 tctcgctccc tagtcatcga aacatcaata ccaacccaac tagacgtagg ccttaccttc 120

accataaggg gccgaactag tataaacct ctcgtgtcct ttgtcccatt taacccttc 180  
aagcttecta gttgcgatgg ctccacaact aagtcctttc acgaggacat ttgacgtgac 240  
aattccacga cacatatcat caatatcaat caagcaggag tagggtttta cctccatcga 300  
gagggcccgga acctgggtaa aaacatcgtg tcccttgtct cctgttacca tccacctaga 360  
cgcacagttc gggacccct acccgagatc cgccggtttt gacaccaaca ctttgttat 419

<210> 11096  
<211> 363  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-031-Q1-E1-A1

<400> 11096

cagcacgtac cccctcgtca agacgttacg gaagcaagat cctccgcac ctcaaggctc 60  
atggcctggc gccggaaatc ccagaggatc tgtacttttt gattaagaag gctgtggcca 120  
ttangaagca tcttgagagg aacaggaagg acaaggactc caaattcagg ctcatctctg 180  
ttgagagcaa gatccaccgt cttgcccgtt actacaagcg caccaagaag ctcccgccca 240  
cctggaagta cgagtctacc actgccagca ctctggtggc ttaagagggc tcttcatctg 300  
gtgtgctctt actggcttca ggatggtctt gttctacata ttatcaattt catgtaacgc 360  
ttt 363

<210> 11097  
<211> 383  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-031-Q1-E1-A12

<400> 11097

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gatgaacaac aggatgacta gagatgctct cgggatcaag gggggaacag ttggcgagtg 120  
ggtgagatgc aaaaaagaac tcccctacac acaggacatg ccaagcagca taccgtacca 180  
tcttaatctc accacgagag gttaccgtgc actcgtatac agcggagacc atgatctcca 240



ggtgcctcag ctcagcacgc angcgtggat aagatctttg aactttctcca tcggcgatga 300  
 ccggagggca tggcatctcg attgccaagc tgcaaggatt taccaccaca tatgcaaata 360  
 acttaacctt tgcaccatta aag 383

<210> 11098  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-031-Q1-E1-A2  
 <400> 11098

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 gttggtagaa tactccgtga acctggtcct gtcaaaggag ggtccactgt gattgctttt 180  
 gcaccagacc cagatggtta catgttcgag cttatccaga ggggtccgac gcctgagcct 240  
 ctctgtcaag ttatgcttcg tgttggtgac cttgatcggc ctatcatgtt ctacgagaag 300  
 gcccttggga tgaagcttct gaggaagaag gatgtgcctc agtacaagta cactattgcc 360  
 atgatgggct atgctgagga ggataagaac actgttctgg agttgacata caactatggc 420  
 gtcacagaat ataacaaggg caatgcatat gct 453

<210> 11099  
 <211> 433  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-031-Q1-E1-A4  
 <400> 11099

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 aatcggtcag ttgaatagtc gggagcagta atttaatcgt tcaaattttt ttcttgtgtt 120  
 agtatttttt tagtagtctt atagtagtct tagatttttc attttgatga gcctcgcttt 180  
 gaggaattca tggaataatc cattttcatg gaataatgaa ttaaggaaga aaggatatga 240  
 gtctaccgct tacaagaaaa gatctcatga tagtcaatat ggggcgtcaa caccatcaa 300  
 tgcatgggtg tcttcgactg atcgttactc tcgatgggtg ggatgttatt gattgtgaac 360

ccatattagg ctatttacac agaggaatgg aaaaaatcgc ggaaaaccga actattatac 420  
aataacttacc tta 433

<210> 11100  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-031-Q1-E1-A5  
  
<400> 11100

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tcgatcgatc gcttgggttt agtaacgcgt agcctgcagt gtaatcgctc gggttcagtt 120  
agagcctgac gcctcgctcg gggttcagta gagccaacgc ctgcgcacaca cgcgctacg 180  
tgtacgagag aagcgcgcat cgctcagccc caacctccca ccgtaaccgg gaactccccg 240  
aaattttcct cccctcgcgt tctacatgg ttttttccat catggacggc ccaaagaatg 300  
tcatgcagct gcgctctccg cccgccagg acgaaaagcc cattttctgt catgattttt 360  
tgtcatagaa gtaggagccc accacatcaa tgatgatact gggttttgtc acaattatcg 420  
tca 423

<210> 11101  
<211> 236  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-031-Q1-E1-B1  
  
<400> 11101

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ctcagtggtg gcctggaaga caacaaaaca agacaagagt caatcaaccg atttgcagtg 120  
aatagaatg aatgaaacag gatcacaacc gaggataggt gttcataccg tgtctggatc 180  
gaaagactgg tcgagcggcg ggatcctcct agccccacga aggttgctct tgttcc 236

<210> 11102  
<211> 426  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B10

<400> 11102

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gaagattctc aaaaaactaa ttatcccctt gtacgattcc attgtattat aaaaataatg 120  
tgccaagatt ttccttttagg atgttttagat cgcttggttg tttgtgcggt gcaaaacaga 180  
aactttggct gtagtgctcg attttaaatt ttctactcga atgtcaaagtg gttttgaaat 240  
tttttgcact gtatttatat acaaaatttt tatttttctt aattttttca gaattgttgg 300  
agtaccatag gtatggtgaa tggtcagatt actacagact atcctgttta agacagattc 360  
tgtttttgat gcattgtttt gctcgttttg atgaaactgt caatttttat caatagtata 420  
agctat 426

<210> 11103

<211> 222

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B11

<400> 11103

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atcctcataa tcgcccgcag actcattaac ctcttggtga ccagcagcag cagtagcatg 120  
agccaaagaa gcatcaacaa cagggatagc agcaccagaa gtttggtccac cctcaagagg 180  
aacacgcttc gctcgtccat actgagtcga aaggggcgtt gt 222

<210> 11104

<211> 199

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B2

<400> 11104

gtgcgcacgg acgcatcagt ccgtacatgt cgaacccctg ccacattgag ctgatcgtgt 60  
cagagaaaga aaagcctgtg aacaaggaag ctgaaagcgt cgtcgcacca aggaaagcca 120  
cccaaactac cggaatggat gcgatcatcc aacagtccga gttgtagttc ttcacaagta 180

cctttgttgg aagtgtttg

199

<210> 11105

<211> 412

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B3

<400> 11105

cagcagtcac acggtgatcc ttaagctact ggtagctatg ggcagcctac aacgtattct 60

actgaagcta cagcaactgc tgcttcccaa gattaatctg ccggcgcaac ttgccctaac 120

acagcaactg ccgctcctgc tctgccaac agtgggtgcc ccaaacttct ccgagttgag 180

ctgcctgctc ctgcctcagc tgcactgca atctggtttc gttggctctg ctgcttgaag 240

tataatcctc actctatcca tggtatctta ctttttattg cttgcttggtg aactttatat 300

attgctatat tatatcctgg ttttgctgct tgcgtatggc atgtactgct gtgcttggtga 360

tcgctgggtgc ataatgtgac ctatactttg gatactgaaa tgcaactggt ca 412

<210> 11106

<211> 294

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B4

<400> 11106

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aattgttcaa gactgtgaac cgggagggtc ctggtatatac tacgttcatt gtacttagtt 120

aagttgatgt tactgttggt ttttctcgt gccgccatgc catgagcaag cgaggcaggc 180

agcttctcaa acttgtgttg ttgtaacttg tatgatggga gcttaagtac attactttgt 240

ttcaaaatac accatgttat ctcttttgt tcttaattaa tgttggacac tggc 294

<210> 11107

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B5

<400> 11107

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gatatttgcg gaagtaccta atgttactag ttttagaggg gtggtagtat atgttcatgg 120  
attttaccct catgcggggg gagcagttgt ccgacctggg agatttcctg gccacattaa 180  
tggtgtttac caactgggtg attttacata ccttgacgga gacttcacat ctgagtctgg 240  
aacgtctggg ggaccagtta ccatgggaga tagagttatt ggagtaaagtg tgcaaagtgt 300  
gggaggatcg agatgcgcgg tttccctct gacactatac atgacattta tgaattgggtg 360  
tggttttaat ggcggagacc atacaattgc tgcgatgata caacgccttg ctgcctaatac 420  
agttttgcaa tgtcaagcat ca 442

<210> 11108

<211> 378

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B9

<400> 11108

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gctgcaagga tgagggtggc tgcaaagcag aaggcggagg ctgagaagat tgtccagatc 120  
aagcgtgccg aggggtgaagc agaggccaag tacctgtctg gcctcggtat cgcccgccag 180  
cgccaggcca ttgtggatgg cctgaggggac agcgtcctgg gcttctcagt caatgtgcct 240  
ggcaccactg caaaggatgt gatggacatg gtgctgatca cccagtactt cgatactatg 300  
aaagagattg gcgcgtctc caagtcctcg gcggtgttca tcccccatgg ccctgggtgcg 360  
gtgcgcgaca tcgccacg 378

<210> 11109

<211> 415

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-C10

<400> 11109

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cacgtgtgat ctggttttct gcaaaatgct agttacagtt gcttggtccc ttgtttcttg 120  
ctatcggggt taaaatccaa gcttatctgt ttggccatcc ttacctgtgg ttgcccagc 180  
taagccggtt gaactattta tgtatctata ttgtcatgcc ttgggtacctc cctacctgtt 240  
gtacttgatt cattcatcgc gtttgctccg atgtgggtatt acttaggctg ctcaagtaat 300  
gagcatatta gttgttgcta ctaaactttc tcaactccgct gtaatgttat atattgtctc 360  
tggaagttaa agcttattgg taatgttgct gctacattgt tatgtagcat cctcc 415

<210> 11110  
<211> 447  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-C2

<400> 11110

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ttagatcgag tctgtttctt atacctacag tccacgaaaa agccacaaaa aaaaattagg 180  
gtagttcat catatccgaa ccaatctgag cctttgcata atcttttttag ggtttttgct 240  
ttgttgaatt tgccggttgca tcgtcgtgtc aagttgctgg tcttagagtc tagtctttta 300  
gagtttcgag ttctgggtcat aagttgtcac gccgccgccg caccatcatc atcgccttgc 360  
catctaccac cattgcttat ccgccaccgc tttgaatccg tatccatata ccagcaccgc 420  
tgccatatac taccgccata tatccac 447

<210> 11111  
<211> 439  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-C9

<400> 11111

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tagatatgcc ttaagaaaag tcacaaaagt tctgctggat gaattcaatg tgacaatgaa 180

ggcagggtttt gagaatgaat tttatctccg cagaaaatta gtaagtgagg gacatgagcg 240  
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 tatactacaa gaagtgtatt cttctcttaa agtggcaaat attgtggttg agcagctgca 360  
 tgccgaagct ggaaaagggc agttcgaggt tgccttgaag tatgtcctgt gcactcttgc 420  
 tgctgacaat ttgatatat 439

<210> 11112  
 <211> 215  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-D10

<400> 11112

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 cagcagcacg agcgacgggg agagcacagc agcagcgcaa gtgagagcgg gagcggcagc 180  
 agatctgggt ggtgtggatg tcgccgccgc cgaag 215

<210> 11113  
 <211> 356  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-D11

<400> 11113

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 acattttcga catttatata ctttcagtgc atcaaacgga aaatcgacga caacctgaca 180  
 tgcaagtcta tgcatgagga cagtatgtgt gtaccatcac tgtccttatg gtttgctgct 240  
 caaagttaga gtttcgttaa cttgacggtc taagcagcat gtcataattag ctctcaaagt 300  
 gtcgtccctt ttacgagccc gtcagtctga acaaaaattg tcacgccgcc gccgca 356

<210> 11114  
 <211> 398  
 <212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB31-031-Q1-E1-D2

<400>      11114

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cctaaaatga acaaaaggtc tttcaattac ccctgggtgc ttgacaagcc caaggccgac    120

cgtgagaggg gtatcaccat cgatattgcc ctctggaagt tcgggaccac caagtactac    180

tgcaccgtca ttgatgcccc tggtcaccgt gacttcatca agaacatgat caccggtacc    240

tcccaggctg actgtgctgt tctcatcatc gactccacca ctggtgggtt tgaagctggt    300

atctccaagg atggccagac acgtgagcac gctctccttg ctttcactct tggagtgaag    360

cagatgatct gctgctgcaa caagatggac gccaccac                                398

<210>      11115

<211>      399

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB31-031-Q1-E1-D4

<400>      11115

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agagtgttgg atgggtgatg gagttgcttc tcgaagatgg tgggagaggc ctactagaaa    120

aactgagggg agaactacaa tattatcaat aagagtgggg atgtgtttct gtgtgtgcct    180

gtgcgtgata gatctgtcgg gacgcatgca tggatgatga aggggaacca tgtgtttgct    240

aagcaaact aactatatcg gtagatcaat tggtgtttgt cggaggaagg gagagacata    300

actaatgagg tagatcgatc gacgctggg gaaaaacgag ttataattaa ggacctagct    360

agctatatgt atagcgggag atctgtcagt gtacatcca                                399

<210>      11116

<211>      454

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB31-031-Q1-E1-D7

<400>      11116



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 cagctgctcg agcccgtagc gaaaaacgcc aggetgaagc tgctcaacga gctgcagagc 180  
 tgcgtgcaca ggaagtcacg aaggagctgg agaacaccgc aagagttttc cagctgcaca 240  
 tggaagagct gcgggcaaaa caagaggaga tcgccaagag agatagtgat atcaagggtg 300  
 tggaagcaat aatacgaacc ctgagtagca aagatgatag cggatccagc gagtaataac 360  
 catacactgg gagcatttgg gcattctcat tgatgctttc gtgttcaagc atcccggcac 420  
 atatttatcg actccatgta agcacttcaa tact 454

<210> 11117  
 <211> 461  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-031-Q1-E1-D8  
  
 <400> 11117

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 tttgcaaaga atgaaacatc ttactatat cccgagtcgg taactttctc tacaattaca 120  
 cgccgcccgt cgaacaccct cgtgagtctg cacactacaa acaagcacgg acaaatttgc 180  
 caaacatcta caggaagaac ccaagctaaa aaaaaactaa tgttctcttt gctttttctt 240  
 ttgtcgaaac aaaggagcag acggcccgtg ttctgatctg tataaacacc acgccgctgc 300  
 tatatcaggg gttcggagag ctccatctcg ttggagggtc cctctgcctc ggcaggcggc 360  
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 cggctgctcg ggtccgcctt attgtccgac tcctccgct g 461

<210> 11118  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-031-Q1-E1-D9  
  
 <400> 11118

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gatcgaggtc atcttcaacc tccgcaccgc cgctcaccgt ctctgattcg gcctcaccgg 120  
 agcctcctcg agcccgcttt gtcacctac aggatcgata cccaagact gccggcgacc 180  
 cccagttcga ctactgtgtt gacgaccctt gtcttttgcc agagcaacca gacgatggag 240  
 tccaggatcc aaacgccacc atcgacgatg actcctacta cgccggagggt gcctactact 300  
 atgtgtagcc cgctgacgat gaccaggagt agttaggagg atcccaggca ggaggcctgc 360  
 gcctctttcg atctgtagcc taatttgtgc tag 393

<210> 11119  
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 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-E11

<400> 11119

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 aatcctggtc attgctcagc agaggcccat catctccact cgggaaaagg tcttctccta 180  
 gatccatctt ctctccagt gtggcaatat atttcttccg gtctctgagt ctttccataa 240  
 aatccttgac ttcactctga tgctcatagt gggcttcacg tgttgcatcc tctagctcaa 300  
 tttcacgaag atgcaacttt tggaccgtct tcaagctctt gcgcatctga atctctagag 360  
 ccctgatgtg agcctccaag tcttggacat atgagcgaac ggagtcgtca tctatggtgc 420  
 ggataatctc tccatct 437

<210> 11120  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-E12

<400> 11120

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 agtattattc atactccaaa agatataagt gaagttcatg gagcattcta caattaatat 180

agactaacca atatcccagc tcaaaatata taaatgaagc acacgaagca ttctgtaaaa 240  
ccatactcaa aagattaaag tgaagcacia agagcaattc tataagatca tacttaaaag 300  
atataagtga agcacatgaa gtattctaca aatcaatgaa gggctatctc atactatcat 360  
gggtccaaaaa aaaaaaaaaa aaaaaaaaaa aaagcggccg ctct 404

<210> 11121  
<211> 376  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-031-Q1-E1-E2  
<400> 11121

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cgcgctaggc tagaaggaag catctccatg ggccatcaaa cagatgatgt cattgggttt 120  
tgtgttgact tcaatcgtgg ccttaacaag atagggtctcc ctaaatecgc gtatgagggg 180  
agactgactg gaaaacgcac gctaggatcg gactcaatat tattcacgga tcggcactct 240  
tggtctcaag cacactacac agttctacgg aactctacct tggtgatccc gtatgtcgat 300  
gaccacaaga acagtctgcg ctccatacac ccagactagt gcgatgactg gattacatgt 360  
gaacacatca ggactt 376

<210> 11122  
<211> 384  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-031-Q1-E1-E4  
<400> 11122

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ccctcgccgc cggcgcgcac gtgtccatga ttgggcagtt tggtgtcggg ttctactccg 120  
cctacctcgt cgccgagagg gttgtcgtca ccaccaagca caacgacgac gagcagtacg 180  
tgtgggagtc ccaggccggg ggctccttca ccgtcactcg tgatacgtct ggggagcagc 240  
tcggcagggg taccaagatg gtcctctacc tcaaggacga ccagatggaa taccttgagg 300  
agcgccgcat caaggatcta gttaagaagc actctgagtt tatcagctac cccatctccc 360

tgtggactga gaagaccact gaga

384

<210> 11123  
<211> 372  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-E9

<400> 11123

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acaagatccg gcaggagctc aacaagacca gcaaggagat cggcaagctc aaggccaaaa 120  
agcaggatgc aacggagctg atacagagca cagaggagat taagaggagg ctggccgcca 180  
aggagaagga ggtggaggag gcaaagacca ccctcgatgc caagctcgtc accattggca 240  
acctcgtgca tgaatctgtg cccatcagcg gcgacgaggg aaacaatgct attgtccgga 300  
catggggaga gaggagactg gaggagaact tgaagaatca tgtggatctt tgcataatgc 360  
ttgacattgc at 372

<210> 11124  
<211> 323  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F10

<400> 11124

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gcatgatgcg gcttgaagct acgtcattat ttccccaag aggaagggat gatgcaggac 120  
atcagcggtg ggtatttccc tcagtgatga aactgaggtt atcgaaccag taggagaacc 180  
aagcaacaca acgtaaacag cccctgcaca cagataacaa atcctcgcaa cccgacgtgg 240  
taaaggggtt gtcaatccct ttcaggaac gatgccagaa attggcacgt ggacgggaga 300  
aagttgtaat agattgatag atc 323

<210> 11125  
<211> 445  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F11

<400> 11125

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atatggctaa cagcgaaact ctttgtttca tccatttgag tagaattaat acgtatcatg 180  
ctagtgtaat tagaaagagt tcgggttcat gtggttgatt ggagacaact taattttagc 240  
aggcattttc tgcgggggaca acttcggcaa attgaacaat ggctaaattg accaacaatg 300  
ggtttgaacc taattcaatc caataaccct tttggggggg aaattataag gtttgcaaaa 360  
gaaccatgct tgcaaaaatg tatctcgatt ggatgattgt atcctcgact catagtgggt 420  
aaccaaccta gtgtgggtttt agtcc 445

<210> 11126

<211> 403

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F12

<400> 11126

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agtttttcgt agtttagatc gagtctgttc ttcataccta cagtccacga aaaaatgaaa 120  
ttaggggttag ttcatcatat ccgaaccaat ctgagccttt gcataatctt tttaggggtt 180  
tgctttgttg aatttgcggt tgcacgtcgc tgtctagttg ctggtcttag cgttagtctt 240  
ttagagtttc gagttctggg cataagttgt cacgccgcca ccgcaccatc atcatcgccc 300  
ctgtcaccta ccaccaccgc tctattaatt tccaccacgt gctatgcact gttcattgtc 360  
ataatcatag ttgaggtcat tcacatcttc acctgattca atc 403

<210> 11127

<211> 405

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F2

<400> 11127

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ttcctataga cagtcgacga tggcgtgtat tcatttgga ttcacaagac ttggccttga 180  
agttccccgaa gaagagatgt tcacgtcatc atttgcatca gccagggttct tgaagtaaaa 240  
gaatttgtct ccataaaaga gcgtttacgt cgttgggtgat gatggcattt tggacgagct 300  
caagttagat ggccttgact gtcatgggtg tcccgaggat ggcattgacaa acatacggtt 360  
ggaggcaaac atctacttcc accaggatac gagtgttcga actgt 405

<210> 11128  
<211> 427  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F3

<400> 11128

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cagttagaac aaaacgcctt tgccttggaa agggaaactt catattggct gcaaaaccca 120  
acctaagagg cggccggcag gagctgcaga agcagcacac accaacagca agccgaggca 180  
acttgggaag cggaggcggc aataatgact tgctgaccac ggggcagtct gccaaagcat 240  
aatcccatt cttctcataa gctatagcca tgaccaaaga cgacatcgca acgtgcccct 300  
ccctcctatg cctcaaactg tgtaccagcg agagactgta ccagtgtaga gaagcccttg 360  
cgaaactatt atttagttag aaggctgatt gctgatgaac attgatttta actataaaca 420  
tatatat 427

<210> 11129  
<211> 445  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F4

<400> 11129

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ggggtccccg agacgtgga gttgctgcga aaattgggca agaaattagt ttttgtaaca 120

aacaattcta ggaagtcgag aacgcagtat tcaaagaaat tcaaaacact tggccttgaa 180  
gttccccgagg aagagatctt cacgtcatca tttgcagcag ccatgttctt gaagttaaata 240  
aattttttctc cagaaaagaa ggtttatgtt gttggtgagg atggcatttt ggacgagctc 300  
aagttacctg gctttgaatg ttttggtggt ccagaggatg gcaagaaaaa cataatgttg 360  
gaggcaaaact tctacttcga ccacgacaaa agtggttgag ctgtcgttgt tggacttgat 420  
cagtacttca actattacaa aatgc 445

<210> 11130  
<211> 225  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F9

<400> 11130

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gttgcggtaa tcaatgagga gattctggtg cacgcgggtg tgtttgacac tcagttcagt 180  
tgaggcagcc ggtaatgttg ttgcggatcc atgtcaagct cgatg 225

<210> 11131  
<211> 403  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-G11

<400> 11131

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ttagatcgag tctgttcttc atacctatag tccacgaaaa agccgaaaaa attagtgtta 180  
gttcatecca tccgaaccaa tctgagactt tgcataatct tttctgtatc tgctttgttg 240  
aatttgcggt cgcacgtcg tgtcaagttg ctggtcttag catctagtcc tttagagttt 300  
cgagttctgt tcacaggttg tcacgtcgcc ggtgccatat atcaccaccg catcatcatc 360  
atcgttgctg ccatatacca ccaccgcgc aacttcatca ccg 403

<210> 11132  
 <211> 449  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-031-Q1-E1-G12  
  
 <400> 11132

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 gcaattggac acaattgcaa tcgagtaata atgcttgacg ttgcaactgt agatatggac 120  
 atgcaactgg cctataaaaa ttgtaccggc ccttggttgca gtcacattga gggacatgta 180  
 gttgtagttg ggttgcaaca cttgtggttg caagtccaat ggtggacata ataacacccc 240  
 ctattggcct aattgcagct tcattggggc catgcaattg cagtcggggtt acaaacactt 300  
 atagttgcaa ttctaagtag gttgacgtat aactagctga caacccccgt ttggaccag 360  
 ttgtagttgc attggggcat gaacttgacg tcggggttgca attcttgcaa ttacaagtct 420  
 agtgatgggc atgcaactgg caacaacca 449

<210> 11133  
 <211> 410  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-031-Q1-E1-G2  
  
 <400> 11133

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 atgggatgaa tttggtgttc taaagaaaga tagtgcccag atgcaaaatc aagtgtccaa 180  
 gctgcaagaa gatgtacaag ccattagtgc caagcaagga gagattccag caactgttgg 240  
 aatagtgga caggtagtgc tggatttggg taagcaatta tcaggcatca ataattgtct 300  
 cctgacatta gtgaaatcaa ctgagcaagg gctgcaagct gatcaccctt ccagttctcg 360  
 tgaagtggcc agatctccta ctcttcatca agagcaaaca caagaacaag 410

<210> 11134  
 <211> 164



<212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
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 ctgatggttg cacngtggca tccgctgcag cagacgagac cctgcgcttt tggaatgtgt 120  
 ttctgatgc tccgaagtct gcattgaaag agaagacttc acag 164

<210> 11135  
 <211> 354  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-031-Q1-E1-G4  
 <400> 11135  
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 gaggaacccc tattttgaaa gaatggcttg cctggtcacc gtccgtcgag gcgagagatt 180  
 agcttggtccc gagagctcaa aatcgaaagc ctaggcatgc gcctgttgca gcctggatgc 240  
 tactcgggtcg tttcaaaaag aaggaactta tagatgagga gcgaggtgca accaaaaagc 300  
 tgcgtcccg cgcacaagat gaaccggcaa ctcttgtcn ctgggcgaca caga 354

<210> 11136  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-031-Q1-E1-H1  
 <400> 11136  
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 cagacgtatc acttaacca aggtgctggt aatggacgac ggaacactga agcaaactca 120  
 gccgggcaaa accgagaggc caactctgca agctccaatg acacctccat ggacatggtt 180  
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accaggaagc gtcgagtgcc agtattttct ctgggttttg tatgttatgt atttttccta 300  
aagctcatgc actgtgtggc tttatagttg cacacctggc aattcactta aaagttattg 360  
gatttgTTTT gttttgttca agcctgtttg gagagaaatc tatatgtatg cctggttcat 420  
gtcttg 426

<210> 11137  
<211> 336  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-031-Q1-E1-H10  
<400> 11137

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atatggctag tcaagccata gtatatacct atatttgtca ggctgatcat gctagagagt 180  
aaactacgat caaatagtcg gtttcatgta accaatttat ccagcatatc ctatggagta 240  
agtacaaaa atattatttc agacaattat tggaagatct caaacttctg aagaaaatgc 300  
tgttaaacct tctcagctaa tatcttattg tttccc 336

<210> 11138  
<211> 381  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-031-Q1-E1-H11  
<400> 11138

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gcaactgcc aacataacgag atggcaactg ccaacataac tagatggcaa ctgccaacat 180  
aactagttag caactaacag aaatacatgg caactctttc ctttcttcat gccctccaac 240  
ttgatgattg aaggaacata cgttaccttc ttttttgcaa aataccatga tggcacctga 300  
ttttttttat tttaaaattg ttgtacatca gcacatttac gtcgatcgtc gtgatcaacc 360  
cactgtggac tttactgaga t 381

<210> 11139  
 <211> 361  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-031-Q1-E1-H12  
  
 <400> 11139

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cttcgggccg gatgatacgc catgggacgg aggcacgttc aagcttacct tgcagtttac 180
agaagattac cccaacaagc cgccaactgt tcgttttgtc tctaggatgt ttcacccaaa 240
tatttatgca gatgggagca tctgcttgga tattctacag aatcagtgga gccctatata 300
tgacgttgct gccatattga cttctattca gtccttgctg tgtgatccna aaccctaactc 360
t                                                                 361
  
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<210> 11140  
 <211> 391  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-031-Q1-E1-H3  
  
 <400> 11140

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gcagcggcag tagatgatct tcgttcagag gtgacggcat ctgcctggct gaatgatctc 180
cgtcacaaaa tcgagcaaac tagaatcctg agcactttct atcgatctgc atctgccttg 240
ggatcgcgac ttccttctat ggcaaagtct aaagctagag tagctggtgc tggtgccatc 300
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<210> 11141  
 <211> 411  
 <212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB31-031-Q1-E1-H4

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ttgcggatcc atcttctgag cctcgtcat atcaggtgc cccgcgcatt ccacattggc    180

gagaggctat ggagcaagag tttcatgctc tccttcgtaa caagacatgg actctcattc    240

ctccccacc acgggtaaat attattgact caaaatgggt attcaaagt aagaagcatt    300

cggatggatc tattgagcgt taaaaagcgc gacttggtgc tcgcggtttt cggcagcgcc    360

atggtcttga ctatgaggac accttcagtc ctgctgtaa gcctaact a                    411

<210>      11142

<211>      410

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB31-031-Q1-E1-H6

<400>      11142

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agtgtaaatc tgttgggtg cttcttactc ctgatgatgc tacagagtat cgcagtattg    120

ttggtggcct acaatacctc actatcactc gaccggatct ttcctttgca gttaaccgtt    180

tctgggaatt acctcaaggc ccttcttgac acacattggg ctgcatttaa gcacattctg    240

cattgcgttc gtctcactgt ctttttttgg ttacaccttc ggcttgcttc gtctatggtg    300

ttgtctgcct tttctgacgc ggattgggca aggagtccgg atgataggcg atccacgggg    360

ggatatgccg tgttcttttg tccaaatttg atcgctgga atgctcgaaa                    410

<210>      11143

<211>      432

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB31-031-Q1-E1-H8

<400>      11143

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tgcaaagttt gcagccgtcg ctgcattgtg cgtccaatac gaagccgact tccggccaaa 180  
catgagcatc gtcgtcaagg cgctccaacc cctgctgaac ggcgcgagcag cccaccccg 240  
ggctgaacac gctggacgct aagctgcact ccggcctttt gtatgatata atagataagg 300  
aaaaatgagc catcaattgt tgttcttgcg gggcatgtgg caggcggttt ttgtacattt 360  
gtgattaatc ttcccaagtt gtaaccctcg agattctagt accagaaata tttgattctt 420  
tgtatccggt gc 432

<210> 11144  
<211> 317  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-H9

<400> 11144

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cctccgactg caggctcctc cgcgaggact agctctagtg actccatgac tccaaggagt 180  
tccaaagcat gaacaggatc tacaaggagg accatcgtea gtcaagatct gctgctcgca 240  
aggccaacga cgaagcccta ggaactcctg ctgttgacgc tcaccactat catccatttt 300  
cgattttttt catatgc 317

<210> 11145  
<211> 439  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-A1

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agtcgagacc ggaccaaagt gccagcggg cctgtcccc tgaaccggac cggcgaggcg 180

aaagctcggg caggggtgagg gatctagcga tggcgagggg gcgctagctg cgtgtgtgtg 240  
tgtgtgtgtg tgtgtgttgt gcctttgtgc gtgcccagag tggttgcgtg cgtttgtgcc 300  
atgccctatc ctaaagagca aatcctccgg atgcttggtg cagacaaaga ggcagtccat 360  
ctatggtagc atctcatctt ggggaactct gccgcccggc ggcactgtca ccacatacta 420  
ctatgtacgt acatcggtg 439

<210> 11146  
<211> 437  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-A12

<400> 11146

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cttctcagaa gcaagaaaat ggagctgaac aaactccaag cgacaaggaa actggtggag 180  
caccaacaac agcatctaca gaactaatg acgggaaggg tgctgacagt gaaagagatg 240  
ctgacgagga cgttgtgacg agaaagagaa cagatagcac aacctcggag gagccagata 300  
atgcaaaaag acaaaattta tcgaacttga agactgggtg ggcgacacaa tctgaaaatg 360  
gagaagcggg actcaaaaca cagagcaaaa gtgctgcaga agaactggtc aatgatgcca 420  
atcatcaaga tattaag 437

<210> 11147  
<211> 442  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-A3

<400> 11147

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ccacctctcc acacacacca tctctgtcag acatggcgcc ttccgcgacc tgccgtctcc 120  
actccatggc atccgtctcc cgcgtctctc gcccgcgccc gcgtctcgcc gctcctcgtc 180  
tcggatgcgg actgagagtt ggatgctctg tgccagcata tggaagtgct gccacggaga 240

aggcctagtg gggattggcc attgcgccct cacgagcgac cactcttggt ccggttggtca 300  
ggagccgtca aattttctgc aacgcagaag cttacatttc tagtaacctg ccagcgagca 360  
agcctactgg agcaagccag tacgagaaaa tcgttgcgct actcactact cttttccctg 420  
tctgggtcat attacgtaca gt 442

<210> 11148  
<211> 403  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-A8

<400> 11148  
attcgccggt cgacacctga atctcgggac gagattctgt caagtggggg cgagttgtca 60  
catccctagt ctggtatgac ctaggctagc tagctatttg tgcatacat ttaaatttca 120  
tttaaatttg aaatgaggat tgggtgaacc ctcagaatca tttttgaaaa tgacccaaat 180  
aaaaatttct ccaaaatggt ccaagaagat gctcatgttg ccctctgacc atattggaca 240  
gagatagaaa tccatgcaat attttttagga gctcatggac atttactttg gccatttgga 300  
caaattcgat aaatatttgc attggtaata taattctata tatatgaaat atggcccaca 360  
ccttatgcca tttatcaaat agctctggaa taatatatcc agc 403

<210> 11149  
<211> 439  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-A9

<400> 11149  
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aacgaatacc caattcacat gactactaat agcaagactt ctcccttgtc ctcagaaaca 120  
aatgtaacta ctcacaaagc atattcatgt tcataatcag aggggtaata atgtgaataa 180  
aggatctgaa catacgatct tccaccaaata aaaccaacta gcatcaacta caaggagtaa 240  
tcaacactac tagcaacctc ctagcaccaa tcctggactt ggggacaaga attggatata 300  
agagattaac tagggtttgg agatgagatg gtgctggtga agatggttgg ggagattgcc 360

ctctcccgat gagaggagcg ttggtgatga cgatggtgat gatttcccc tccgggaggg 420  
aagtgtccgc gacagaata 439

<210> 11150  
<211> 412  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-032-Q1-E1-B1  
  
<400> 11150

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tgctcgtcgc gcagaaggtc tgcgtagaag gtctgcgtca gggatatacat ggggtgcacc 120  
accagccagc tcgacgagct cgcgcgcgag accgcgcgcg cactcaccgc ctcccagcct 180  
gactatgcct ctcttgccgc gaggattgtt gtgtccaacc tgccgccaag tggaaatagt 240  
ctgtgtggcg ctcataaata aagagcattc ttgtagaaag ctgagggacg aggttcgtaa 300  
ccgagagtca tgtgcagagc tggaggaaga agttgcgagg cttggaactc tccttgtgaa 360  
aggctcaagg acagcagtga ggacaatgcc tcttttagttg taattgtgat ac 412

<210> 11151  
<211> 446  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-032-Q1-E1-B2  
  
<400> 11151

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ctatcaagtg gtatcagttt tcaggttgct cggtgagaat ttocagtttc gcctagatta 120  
gatttatatt cttacctatt gtccaagaaa aagccacaaa aaagttagat ctattcatcc 180  
ttttgtccaa gccagtctga gcctttgcaa ttttctattc attgcttgca tgattgaatt 240  
atcggttgca tcacgtgtgc gagttgctgg tcttatggtc tagttcgttt agagtttcga 300  
gttctgttca cattagtcac gtgcgcgtg catcgttatc ccttctgctg tccaacacac 360  
catccatcaa attccaccac gtgctacca tagttcattg tcacaatcat agttgaggtc 420  
gttcacatct tcgcttgatc caatct 446



<210> 11152  
<211> 439  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-B3

<400> 11152

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ttcaaagtgg aatttgatat cagatatggc tcaaaggatga ccaagcactg tttagcaaaa 120  
tgaattagct taattaaaga gggttactgt acctcattac ataggggtgt tacacctcca 180  
caaccttatt cgcgctcagc agcactgcag cataaacctt agctctcctc tcaactcctc 240  
acttccactt ccatggcatg gccgtacaac attactgttc gtgaaatgga acttctcacc 300  
atgtgtgata tcccggcgcc actggacacg cgctgtcag tgggatggat tctgagtgtc 360  
gaggtcttct tgtggtgctt actccccatc ggtatcggtg cctttgcgca cctcgtttgt 420  
atgtttcggg cacgtctga 439

<210> 11153  
<211> 450  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-B4

<400> 11153

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gcagctcaag caacagcatt tcattgggca cttacagttc ttttcatatc tatggcacca 120  
tagatactga cagctgggtg aggccacacc tgcagcatga tggctcatgt ttgctgctgc 180  
aagcatacga tgatgacatt gacaaaatct gctatgtgat gaatgacctc gcacgtggtg 240  
gtgtcgatgg ctctgctgat cgtatcatgg atgacacgcc ttactcgaat ggcattccatg 300  
atttcatgat tttgccagca ggcaagaatg gggagatcaa gaagcagcta accatctatc 360  
aagaactcga gcagtacttc tcaaaactca tgcttttagcg tgaccgtaac agacaatttg 420  
ctgccttgga aatggtgaaa aatgttctgc 450

<210> 11154

<211> 427  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-032-Q1-E1-C11  
  
 <400> 11154

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gcggaaatca tctatcaaga tgccttcgt acctcggggc aattctacct cagaaatcaa  120
ctgtccaaca gtgacatcga cacaatgcta cgaatgcagg ctgacaacga ccgttatttc  180
atgactccca cgatagacgg eggcttcac cacgctccgg tcccttgagt cgagtcgaaa  240
gaagtgatga tgtgtctagt tctgaaacat cgattggctc atgttgtaat taaactttaa  300
tgaacttgta gtatgcctct ttggtttcga gagtcgttca acttagatgt aatcgatgct  360
attaatgtct tgctttttctc ttccgatcgt tctgttgcat acttatatat tgcttatgta  420
ttgtctg                                     427
  
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<210> 11155  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-032-Q1-E1-C12  
  
 <400> 11155

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atltgatgat tgttctttga atltgcatct cgcggattcc accattaaga aacctatggg  120
aaggattaat gatgtttctta ttgttgcaaa taggaatttt ctgccatac attttattgt  180
ccttgatata gatttcaatc cgacatgtcc tattattctt ggtagacctt tccttagaac  240
ggttggtgca attattgata tgaaagaagg aaatattata ttacaatttc cattaaggaa  300
agggatggaa cactttccta ggaagaaaat taaattacct tatgaatcta ttatgagagt  360
cacttatgga ttgcatacca aagatgacaa taccta                                     396
  
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<210> 11156  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-C3

<400> 11156

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cccgccgtgc ctcgtggcgc atcatttcct ccatcgagca gaatgaagag agccgtggca 120  
atgaggaccg tgtcacactc atcaaggact accgtggaaa gattgaggtt gagctcacta 180  
agatctgtga tgggtatcctc aagcttcttg attcccacct tgtcccctca tccactgctc 240  
cagagtccaa ggtcttctac ctaaagatga acggtgatta ctacaggtac cttgcggagt 300  
tcaagagtgg aactgagagg aaggatgctg ctgagaacac catggtggca taaaaagctg 360  
ctcaggagat tgcactgaaa gagctgcccc cgactcatcc tattaggctt gggctggcac 420  
tcaac 425

<210> 11157

<211> 450

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-D1

<400> 11157

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gctgcgggaa ctcttgggtca tatgcacaag gtaatacata aatggaataa ctttgtttac 120  
atgatagata tatgatctta agatgaaaac agtgcaattg acacaatatt gggaataagt 180  
aatcccgtat gacttgcata agatgagcac caagatccaa atccatgtgg ttgaagacaa 240  
caaacacatg caagcaacta atcaaaaatg atataagata ttcttctgac atacttgctt 300  
agtgatgatt gttttttcat ctattaaagc cactggataa tggagctcac atgagaatat 360  
tcatgaaaag gactaatattt atttatgcaa attggtaaga acatgattta atattatgca 420  
ttccatttgt tattttacca gaaatttgct 450

<210> 11158

<211> 401

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-D12

<400> 11158

actcgcgggt cgacagtaca ctggataatg agtcgtatta cacgcgggtc gatctgacat 60  
acaggtcgag gagaacaatg tgtgctgcc a ctgcgagcat gcatgaacca gtcaaagatc 120  
tgtcggcagc atgtaatgaa tgaagtcac agatgtccaa cactagcatg catggaagga 180  
agccatgatc ttagcatgct tttattttgc gtctgattaa aactctgggtg tatcaatatg 240  
ctgctgcttt ggtgttacct tggattcaac ttctgacaag agctctgatg catgaacatg 300  
ttactgactt tgggtgccatt ttcagttcat gcttcttctt aaatgttcga gtgttctcct 360  
tcttgacgtg gattttcgtt ctgtatgata cctgctgagt g 401

<210> 11159

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-D2

<400> 11159

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cctccaccgc acgctaate accggctact gttcaaccag ccttctccac gagctcctgt 120  
tcaaccaccc ctccacgggc tactgttcat cctgccctcc accatctact gttcatcctg 180  
ccctccacgg ggtggctctg ttcattcagc cctccacggg gtcctgttca tccagcccca 240  
accgggtcga tcgatcgagg tctgttcat ccagaggcaa caccacgggg tcttgttcat 300  
ccacccccac caggaactgt tcatccaaac cccccgaac gctcactgtt catccagagg 360  
tagcatcgat cggcttcagt tagcagcagt agccaaggaa tcgctcgatc gggttcagtt 420  
aacagccatc gatcgatcgc tcgggttc 448

<210> 11160

<211> 455

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-032-Q1-E1-D4

<400> 11160

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gaaagctacc caaaccgcag gttgttacct tgattagagg aggaagcact tgacgcggcc 120  
 gaccggccac ctctgtggccg cgacagagag gcctgtcggc cctccactta agccgcaccc 180  
 cgtaccaagg tacgggaata tgcgccggac ttacgagata tggtggagga caaggcaagg 240  
 caaacaagat cgatctacgg atcacgtggg cgccccacgg ctcgagacgg taaccgtcac 300  
 gccggccacg aattcggcag ggccgaacac agtagacaaa gctcattgga gctacgtcgt 360  
 gatatagccc agtacagagg cgccgcacac ccactatgct tcacagacga nataatggat 420  
 catcaaatcc ccgagggttt caaaccgcta aacat 455

<210> 11161  
 <211> 449  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-032-Q1-E1-E1  
 <400> 11161

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 aagggcatcc acgtgatcat gaatcgtaag aaagagtatg acatgctcaa gtcacagatg 120  
 ccagagaaca gagcaagcta cttgaagtgc tccagcaatg acataaccaa gatttggcta 180  
 gtatagagga tcgacgacaa agaacagagg atggcaccaa aaggaacagt gttcgttcca 240  
 atatcgcagt tcccccttaa gaaagtccgc aaggactgca cttacttgag cactccggcg 300  
 atgaagatcc cggacactat gcagaacatc cactcctgcg agaactgggt gccgagaagg 360  
 gtgatgagcg cgtggcatat cgccggaata cttcatgtcc tggaaggggt gagcgagcac 420  
 gagtgcggtg agcacatgat ggactctga 449

<210> 11162  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-032-Q1-E1-E11  
 <400> 11162

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 aacatcagaa gataagcttg cggtaat tttt gtaaagtttt ggcatcggac tgtttggaac 120

tttggatcgg cagagagcta gaggcctcgg tgctctggag gatgttaa at ttgagaacgc 180  
 aaattgttgt caaataactt tgcttctctc atttgaagaa tttagtattg ttgggagcct 240  
 ttgggcaagc tgttatctct tatctgaagt tcccattttc tcctctcccc ctttttggtt 300  
 tttgcctggg tagcgatcag gtccaatcct ctgggaattc tcctgtgtgt acaaaaatgg 360  
 aaacagcctt ggcattgttt gttatctttt gctgggaagt ttctccatcg ctttgcaatc 420  
 tatagtgaag tggagcagaa aatggattgg a 451

<210> 11163  
 <211> 449  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-032-Q1-E1-E3  
 <400> 11163

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 agttttgctc catgtactta tggttatcta aaaaggctag tagcatttgt aagtgtgtgt 180  
 ttagttccta ccttcagaat atttttgtgt agactatggt cttgaccaca tcctccttgt 240  
 tgttagttca tttgctatat aaaagaaaat aacagggtgtg atcaagtcaa taggatatta 300  
 cttgcgagtg ttttttctaa gtattccctt tctcttatgt ttctcatgaa ctccttgagc 360  
 tttatgtgga aactcgggc aacaatatca gacctttctc ctgcacaaaa aaaaaaaaaa 420  
 aaaaaaaaaa aaaaaaaagc ggccgctct 449

<210> 11164  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-032-Q1-E1-E4  
 <400> 11164

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 ctaaaccac tccaaagaag agagggtgtt tattttctcag tcctgaagat atgcaagagg 180

caaagaaatc aatgaaagaa aaaggtatta aagctgaaga tgtaagaat ttaccaccta 240  
 ttgaagaaat acatggtctt aatataccgc ctattgaaga accacattgt cttgataact 300  
 cgacacaggt agtaaaggta aattctctct atagatatga taaagttgaa atcccctcta 360  
 ctaaatttca tagcccatgc ttagatgaat ttgatgactt tatggctaga caagaaagtt 420  
 ttaatgcttg tgttggtaga gagttaaaga ata 453

<210> 11165  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-E9

<400> 11165

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 tcgccaaagc tgccctcaat gcttacacaa ggattctcgc caagaagtac cctaggatgc 180  
 gcatcaactg tttgacgcct ggttatgtca agagcgacat gtcgatgcac atgggagttt 240  
 tgacgcctga ggagggcgct agcaaccggt tgaaggctgc tctcttgccc gacgatggcc 300  
 cgacgggtgc ttattttgat agggatggcg tggcctcgtt tgtgtgactc tgtcgtacgt 360  
 gtaatggttt cgtccggttt tactttcaga atatgagaca cctgtaactg tagttgtcaa 420  
 taaccattgt gc 432

<210> 11166  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-F3

<400> 11166

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 gcgtgccgag ggtgaagcag aggccaagta cctgtctggc ctcggtatcg cccgccagcg 180  
 ccaggccatt gtggatggcc tgaggggcaa cgtcctgggc ttctcagtca atgtgcctgg 240

caccactgca aacgatgtga tggacatggt gctgatcacc cagtacttcg atactatgaa 300  
agagattggc ggcgtctcca agtcctcggc ggtgttcac ccccatggcc ctgggtgcgg 360  
gcgcgacatc gccacgcaga tccgtgacgg tcttcttcaa ggccagtctg cctctgacaa 420  
ctagcagttt gcttcgccgg catgaac 447

<210> 11167  
<211> 431  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-032-Q1-E1-F4  
<400> 11167

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tgcaccggaa ctctggcttg gctgtggctg gattagcagc agacggtagg cagatagtct 180  
caagagcaaaa gtcagaagca gcccaattatg aaaaggtata cggagaaccc atgcctgtaa 240  
aggaattagc tgatecgcgtt gctagctatg ttcattctgtg tacactctac tgggtggctca 300  
ggcctttttg ccggtggagtt attcttggag gctatgatag ggatgggcca cagctctaca 360  
tgatecgaacc ttcaggcctc tctataaat attttgggtgc tgctctgggt aaaggaagac 420  
aagctgcaaa g 431

<210> 11168  
<211> 415  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-032-Q1-E1-F5  
<400> 11168

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tgggtgtgatt atgattgtgc agtcatatgg gtagtgatat tttctcaata gaccattggt 180  
ctatttcaat tttctcatcc actccaaaac accagatgcc tccgagacgt gaccccggtc 240  
tcaacttccc gccggagctc acccagctga tccagcagca gaatgcctc atgcagatgc 300



tcatctagaa ccagaacaac aagaacaacg atccaccgcc accaccccct gttgacaact 360  
 tgactcgatt cctaaggctg aatccgctag tgttctctag cagcactgat acgat 415

<210> 11169  
 <211> 436  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-G12

<400> 11169

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 aagtccttag ttacccttta aagtatatac gtgaggcata gccgcgcctg ttagttggag 180  
 ctaaaggaac tgtagaggag gtttatgagg aaccgtccca gtgatgtttt cgccaaaaat 240  
 aacgccccag taatgttaaa gatttgtttt ttaagcaaca gtgatgatcg cttcactact 300  
 tcttataaaa caacagagtt ggtgatgatg gtgtgcctgc catcttgcaa tatatgccgt 360  
 ctgatctata tctgacggtt aggaaggaaa atatgacaat tttgcaaaaa aatatctgca 420  
 ctctctcca catttg 436

<210> 11170  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-G2

<400> 11170

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 gctccaaatc ttgaaccggt ttcaccattg gattccttgc gtcaagatct tcaaaactag 180  
 atcccatggt gatagatttt aacgaacttt tttccacaa aaaaccgaaa aaattgaacc 240  
 agtagcacgt ttttttctct ttccgaatga ggcacaccgc cgctctctgc gacatcacia 300  
 ccgtgcctct cgtgaaagca aatccgtgac tctcgtggaa gaaaaaaaac agaaaacacg 360  
 ttttttttcg tttccgagag gtacggccgt gactctcgcg aaagcacaac cgtgcctctc 420

gcgaaagcaa aaccgtgact ctgcg

445

<210> 11171  
<211> 452  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB31-032-Q1-E1-G4  
  
<400> 11171

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caaacgaata ccaagttcac atgactacta atagcaagac ttcacccatg tcctcaggaa 120  
caaacgtaac cactcacaaa gcatattcat gttcataatc agaggagtaa taatgatgcat 180  
aaaggatctg aacatatgat cttccaccaa gtaaataaat tagcatcaaa tcatgcaagt 240  
tagagtccaa aacaagggca aaagtgtttg gaaaagtaga tacttggaga cgtatcaact 300  
ccccaagct taaaccttac cttgtcttca agcaattcag ttgataaact gaaagtgata 360  
aagaacaact ttataaact ctgtttgctc ttgttattgt aaacatgaaa tgccagcatt 420  
caagtttttag caaatattat gaactaacca ta 452

<210> 11172  
<211> 411  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-032-Q1-E1-G6  
  
<400> 11172

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tggactctgg agcttcttcc catgtgacct ctgatcactc tcagcttgtg tcttgccagc 120  
cagtgcggga tgggtgcctct gttcagactg ctgatggtac accttgttct gttactcatc 180  
agggttctct ttgcacatcc aagttttctg ttcttgccat ctcccttgct ctagagctgt 240  
ccatgaatct tatgtctatt ggccagcttg ctgatatgaa ctactttggt gggtttgatg 300  
actcattttg ttatgtgcag gaccgtcaga gcaagagggt cattggaact ggccatcgcc 360  
gtagaggatt cacatccctc tacatccttg acaccttaca ccttccttca g 411

<210> 11173  
 <211> 371  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-G7

<400> 11173

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 tgtgaataac tacatccaag ttgccaagga tggtagcagc gatgaataga ctgcgatgca 180  
 ggagcgggtg actgggccat accccgatcc agcacaagac gacacgctga tcactaaaga 240  
 ttacctggaa cagtacaccg agcaataaga gaacttcctt tttggtgcga ccggctcgag 300  
 atgcagccgg gaacacctat tgatgaaatg aaatgaaact agactacgca tctctgaaac 360  
 gctgctgtgc t 371

<210> 11174  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-G9

<400> 11174

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 gcgatgcac ttcgactggc ttgccttaa ccgcatctgc cctgtctgcc gcttcgcgct 120  
 ggccccacag tcagacgacg acagcaacaa ggatctggga ctgcctgaga aagtcgaata 180  
 gctcgacagt ttgccggaag ttgaattgaa gtgtgcagcc cttgcaagcc acgactgtgc 240  
 tagcaggttg tattcatctt cttttctgtt atgttctgtt ttttattgga ttatcgatca 300  
 aaagcttgta gtttgaacca aaattacttt tttcagcttg aaaacttagt agatcttctc 360  
 tctgttatgt acaatacgag caaaatttca tctttatgca tcaaaccttc attttctcta 420  
 agaat 425

<210> 11175  
 <211> 388  
 <212> DNA

<213>      Triticum aestivum

<223>      unsure at all n locations

<223>      Clone ID: LIB31-032-Q1-E1-H11

<400>      11175

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atcccaaacc aacagatcat cggcaagctg gaaagggctc ttggcacaaa gctgcgaggc  120
aagaagtgaa gctgcgtgca tctgacagga gtcgagtctt tcaagagggg agcttggtctg  180
ggcaagttta ccgctaaata aagcttgtct actaaatcat gcgacttaag aaaaccctgg  240
agtttggtat ttcgctttgg tttgggtgaa tgtaattatt agcttctgtg aacaactctg  300
tatctgggtt tcgtttcgtc agtgtgtcgt cgtgaatgtg aactcttctg aatgcctgaa  360
cctttatata acttgtctcc acanaana                                     388
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<210>      11176

<211>      471

<212>      DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB31-032-Q1-E1-H2

<400>      11176

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tgccccgtgca ggtaccagtc tagcgggtcg actccgagga gctcaccgtc gaggagcgca   60
accttctatc gggtgcttac aagaatgtta ttgggtgcccg ccgtgcctcg tggcgcatca  120
tttctcccat cgagcagaag gaagagagcc gtggcaatga ggaccgtgtc aactcatca  180
aggactaccg tggaaagatt gaggttgagc tactaagat ctgtgatggt atcctcaagc  240
ttcttgattc ccaccttgtc ccctcatcca ctgctccaga gtccaaggtc ttctacctaa  300
agatgaaggg tgattactac aggtaccttg cggagttcaa gagtggaaact gagaggaagg  360
atgctgctga gaacaccatg gtggcataca aagctgctca ggagattgca ctgaaagagc  420
tgcccccgac tcattctatt aggcttgggc tggcactcaa cttctcggtg t          471
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<210>      11177

<211>      459

<212>      DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB31-032-Q1-E1-H4

<400> 11177

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tgtcacagaa gatgccaggt gtcattggag ttctgggtgga tagtgcaaga ccaattgatg 120  
caattaactt ggcctacgcg tttggactca ctgaacagtt tgagccagtg caattgctga 180  
aagcatatct gagggaggtc aagaagggtg cacatgccaa gaatggaaaa atgtctcctg 240  
gagcacagaa tgagatgaat gagcgtgagc tgtctgcact gaaagctgtg atcaagtgcg 300  
tcgaggagca caaactggag gagcaatatc cggtggaccc acttcagaaa agggtgattc 360  
agctggagaa ggccaaggca gacaagagga gggctgtcga agccgccaag ccacagtcca 420  
agaggccgcg tgccaacgga tcgctctaata gcacccgtg 459

<210> 11178

<211> 411

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-A3

<400> 11178

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tgtatcccag tttgtgctaa ctttcttaag gcaaacttgt ttaagttagg tctgtactca 180  
aatattgttg cttccgctga tccgtctatc atcgagctct tgtattcgag ccctcaaggc 240  
ccctggcttg taaaaaatg cttgtacaac ttattttaat ttgtaaagtt gtgttgatgaa 300  
aacttctcct ggggtccctga ttttgatcgt acacttttgc gtgtgataag aaaacggcca 360  
aattaggggg atcatagttt tccaaaatca cccttggtgg acaaacttt t 411

<210> 11179

<211> 434

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-B1

<400> 11179

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aagaggagtt gagcgagaga ttggctccct gcaaatggag gagaagaagc tggttgctga 120  
gatcaagaac actgccaaga ctggaaatga ggctgcaacc aaaattctag cccggcaact 180  
agtcaggctt aggcaacaaa tcgtcaattt acaatgtaca cgggcgcaga tacgtggagt 240  
agctactcac acacaggcaa tgtatgctgg aacttcaata tctgctggaa tgaaacgcgc 300  
aagcaaagcg atggcagcaa tgaataagca attggaacca acgaagcaga tgaagcagat 360  
tagagaattc cagaagcaat catctcaatt ggacatgacg cttgagatga tgtctgatgc 420  
cattgatgaa acac 434

<210> 11180  
<211> 300  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-B2

<400> 11180

gtccacagcc gccggacgat cgttgcatc aaatgcaaag atggaattgt ccttggtgtg 60  
gagaagctga taacatcaaa gatgatactt gctgggtcaa agcggagact tcattccgtg 120  
cacccaaact ctggcttggc tgtggctggg ttaccagcag acggtaggca catagtctca 180  
agagcaaagt ctgaagcatc caattatgaa gaggtatacc gagaacccaa gcctgtaaag 240  
gaattaactg attgtgttgc tagctatgtt caaccgtgta cactctactg gtggctcagg 300

<210> 11181  
<211> 391  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-B3

<400> 11181

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tataaaatgg gtttatgtgc atttcgttgt ccgtttgatg ttgatttctc cgttcgttgt 180  
ttgatcacgt agagtagttc atcacgttgc atgcgtagta tggatatagg gtgccagata 240  
tgatatacgc aaatatgaag agaaaaattt aaagtgtgac cagtcagtgc cagtggacac 300

gtccggacac gtccacaaaa gtttgaggag ttcgatttgc tgtctgcggt tgtaaagtct 360  
cttaggaccc tgtgggagcc gtaagtgcac g 391

<210> 11182  
<211> 389  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-B5

<400> 11182

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gcctactgcg accgccagtc tgtggatatg aaagctatcg cgttcctgtt tgacggtcgc 120  
aggctccgtg ccgagcagac cccagatgag cttgagatgg aagatggcga cgagatcgac 180  
gccatgctcc accagactgg aggctgccgt ctccctccaa gcgcctacaa gaagccgtcg 240  
aaagtcctgc tcgttgtcgg tctacaagac tctgatccat cagtaaagag cacatgaacg 300  
aatgaaagtc taaaaaaaaac ttgtgaaggt ctggcccat gccatagctg aaggacatta 360  
tggggggcctt ttgttttagtg ccgtttggg 389

<210> 11183  
<211> 438  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-C2

<400> 11183

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tgagctgatc ttgtcagaga aggaagagcc tgtgaagaag gaggctgata acgtcgtcgc 180  
accaaggaaa gctatctaag ctaccggaat ggatgcattc gtccaacagt cttagtgtga 240  
gttcttctca agtacctttg ttggcagtgt ttgttgctc cttgatgttt ttgttacaa 300  
cattgagtaa ggatttggtta aggttgatgc taacctgtg attgcgagtg gtctttatat 360  
gctaaaacag tttcagatat ttgagcatta gcacaccaga acttatttct cagagatgct 420  
ggtcctttcg ggctcttc 438

<210> 11184  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-043-Q1-E1-C4  
  
 <400> 11184  
  
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 cttgcactca aaaacgtgat gccaaacctc gcggcagcct tcaccgagat cggcgccgag 120  
 ggggtgtgaag agttccagtt gctgcaaatac aagttgccat gtgctctcag caccactcac 180  
 tacacagagt agttgcgggt atacgatatt ttgtgatcct ggtgggtgttg tgataatcat 240  
 gcacattttt gtcctacaac aattagatac tcctttttgc ttttaattccc catcaggaga 300  
 gatattgtcg tagagtaatac agttatctat caacatacat gtaaaggctg ggtagagatt 360  
 tgtcaatgtg atacatcagt agaataaac ctatttttca gaaagaagat aatctacata 420  
 tatagaagtg 430

<210> 11185  
 <211> 251  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-043-Q1-E1-D3  
  
 <400> 11185  
  
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 tgatctctga cccttaccgg gaaagtctca cttgagtgtt ttgacgttgc gaaagtctct 180  
 agcaatgagc gtatatctca ccaagcctgt gctgtcacta catctaaaga atgtccgtcg 240  
 ctttgtcggg t 251

<210> 11186  
 <211> 309  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-043-Q1-E1-E1



<400> 11186

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tatgaggcct aagatgtgtc atgagtgggt gagtgcaggt ttcattaagc atctaccaa 180  
ctagtctttg gttgtttaca gttttgagat ttgtatcttg ggaaccttggt ttgtgtgaac 240  
tgaagtatc tccttgtgct tgggcatcca agcggtatct gctgctctat atttgatata 300  
tggtattgc 309

<210> 11187

<211> 301

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-F2

<400> 11187

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ctatctagcg ggagagggga gggagcgttg gaggaaccgg atgaagatga gtttcacgt 180  
gatgatgtc atcgttatga ccgcagctct cttctatgtc atggtagttt agatgatcga 240  
gatcgacttg taatgtgaag acaaactccc tactcgcggt cgtcagagtt gttttataat 300  
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<210> 11188

<211> 340

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-F4

<400> 11188

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ggtggaagag ctgaccgga gggtaagct cgcgccggcg aactcgctgg gagatctcct 120  
gctactgtgc ttcgacgtga gcggggtaca aaacgggcaa gtggtggcga tgatccctga 180  
cgtgacgtg gtgctcggcg gcggcgcgac ggtcacgcta aaggcggaga acacgttcct 240

ggatgtgcat gacgggactc tgtgcttggc ggtggcgggc gcgctctgagc acgatactcc 300  
 tgtgtccatc atccggaata gcgcgcagca gaacatgcac 340

<210> 11189  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-F8

<400> 11189

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 ggggaaagg accaagaggg tgcatttcgt caggaacttg atcagggagg tagctggggt 180  
 tgctccgtat gagaagcgta tctactgagct tctcaagggt ggcaaggaca agcgtgccct 240  
 gaaggtggcg aagcgaaagt tgggtaccca caagagggcg aagaagaaga gagaggagat 300  
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 catccaagc tcatgaaatt gatggcaatc ttctgttctg gtg 403

<210> 11190  
 <211> 207  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-G8

<400> 11190

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 ataaccccct tagatcacct gtcaagagtt attcacacta gtatcagggg caagtaaagg 180  
 gtttctcggg cgccaaccaa aagggt 207

<210> 11191  
 <211> 394  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-H3

<400> 11191

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ctgggaaaga ataagctgca tgaaatgctg atgaaaactc ctggatttgg agaagccgtt 180  
gcaatttcta agctgatgca aatcgtcgaa ctgcaagaga gcaataaatt taggcgcata 240  
gttttggata cgcgcgggaac tgggcataca ctaaaccctt tatccgctac aactttaatg 300  
gagaagctcc ttggtatggc caataagggt gtgaatttaa cgtcgtcctt cgcagctcct 360  
aatcaactt tcgggaaaga ccaaatagat cctg 394

<210> 11192

<211> 355

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-H4

<400> 11192

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ccggatgacc cagtagtaac aaccgcagag gtgctccctt tatgccctag ccgaactaac 120  
gggaatgtag ggcataataa caggagccag gcaacccaac ttggccaaaa cttaagtcac 180  
attgatgcat ataatggcga agaaaaggta tatatgagca aaaacacata tgtgatgagc 240  
ttgatcctcg gagaataagc ttctgtctgg gaagcccca agtatagtgg gcgtacatgc 300  
tcaaggatgt gtacatcaca ggtgcacggt ttagccatgc gaaagagttt aagtt 355

<210> 11193

<211> 464

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-A1

<400> 11193

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agccaacacg tgtttcctct agccaatgat gattttacac gtggaaaatc ccatttggtc 120  
ggggctgtta acgggttatc ggcacaaaa ccagaccga tagcataacg gcgttcggtt 180

acggtggatg ccacgtgtcg gtcacccttg atgaaagcac ttctgtgacg cgcgatttat 240  
 cgtcatggaa gtggacactt ccgtgatgat aattttggta atgtcatgga acacttctac 300  
 gacagcacag gtatgactat cttgattctg tcataaattt gtcatggatg tacatgcatg 360  
 acaaaaaaac gcgacctact gtgacaaaca cgtatcatca cgggaatgta attttttgga 420  
 attgaaagtc aaatcaacgg ttcgacaac ctattttttt tttt 464

<210> 11194

<211> 402

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-A10

<400> 11194

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 ggaccgggcg aggaggttgc caaggaccaa agtgaggagg tcgccaagga ccaatcttca 180  
 tagttcttgt tctccacgg cgttgatcc gctgttgat ctgatgtca aagtagatgt 240  
 catgtggcgg cgccctcccg tgctgcgaaa ccgaaactga cttggcctga gtttcgtcgt 300  
 tgttccatgc tctcggtat cctagatggt aggtaatgtc ggaacacagg gggatggtgg 360  
 ggcagtgttg ttaccatatg attcaacgtg taacttttct tt 402

<210> 11195

<211> 368

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-A3

<400> 11195

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 accccaaaat gaacagatgg atctcaacta aaacatcaca cgacgtcgcc tgatttaggg 180  
 gcgaccctag tgtagctgca cggtagagcg cagccagat gacagaaaac ttatggttat 240  
 tcatcgctgt aataactagt caacaaaaat atggcgctgc cgattttatt ccagccgagg 300

gccggtgcag ggctacggct tgaaactttg gaatgaacca cagaggtccg tccaggtgcc 360  
aactgatg 368

<210> 11196  
<211> 394  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-044-Q1-E1-A4  
  
<400> 11196

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aaatagccca tttcatggcc cgttaactca cggcccgtta ggccctaaag gaaatcggcc 180  
caacaacgtc atgtggggccg tcgaatataa caccagccca tttcactttt ggcccatgta 240  
tgggccacga cgtctttcgg cccatgatgag gccttcgtat ctttcggccc tttacaggcc 300  
cacggtgact ctagcccata atgaacagta attttcttta taccggttaa cggcctgtga 360  
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<210> 11197  
<211> 382  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-044-Q1-E1-B1  
  
<400> 11197

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ctaaccgagg gtgagagatc cttgggtcgag cgcgtgaggc aagagctgaa gcatgagctt 120  
aaacaggtaa aactcgtctg cttccattct gtcagctgcc actatgttgg tgtccaaact 180  
gaactgtaaa caaaattatt ttcctgactt tgcaggggta tagagaaaag cttgtggaca 240  
tcagggagga gatactgcgg aagcgaagag ccggaagct cccaggggac acggcgtcta 300  
ccctgaaagc ttggtggcaa gccacgcca aatggccgta cgcaactgta gtgtgacaga 360  
catcccgcat ataccgtcat cg 382

<210> 11198  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-B12

<400> 11198

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gggagatggg gtgctagtga tggctctctgg tcttgtagag accaaagagt acagcaacca  180
aaggaaattt atccagatat ttttccttgc gcctcaggag aaagggttatt ttgtgctcaa  240
tgattatttc cactttgttg accaagaaca agtgcaacct gcacagggtga gagctcacga  300
agcctttgag actaacatgg catccaacac agtccaaaca agtgcagagt acattcatga  360
agaaagtcga acaatgcaag ctgttccagt aacatctgaa gaaaatgatg ctgttgacag  420
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<210> 11199  
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 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-B3

<400> 11199

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atcgaggcag agacccccga tctcgtggcg gcttagcttg ttggccaaaa atgattctga  180
ataggctttg gttgtcagca aggcggcggg gtaaaacgag agaccatctg gctgtgctgc  240
gcgtgctagc tgctcttttc ttgataacga aaacttggtg ccttggggtgt cctattggtc  300
tggacttgta acttccttct atcatcacgg atcgaaacag agaaatcata ccggcagagg  360
gtgtcactag ttttttctct ttgaactta                                     389

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<210> 11200  
 <211> 392  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-B4

<400> 11200

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tcttctgctg caaaacactc agtgccacta tcagtggata accatgtgcc tgccatggga 180  
acaggagctt tgaacagttc ttacagtcac catatggcag gtagtgggaa ttcaacctct 240  
gttgctgggtg acacgcaacc gatcatgagt gatgcttttt atattgaccc tgatgataag 300  
tttatgggca gttcttttga tggactgcct tttgatttca tcggtattaa tagtccaagt 360  
cctgaccttg atgaactcga tgaactgctg ga 392

<210> 11201

<211> 377

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-B5

<400> 11201

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ggtttttttcg gggttgtggt cgcgccacac acattcgcca ttggagggct tgacatgaaa 120  
atcatgggta ttggattgat atgtgcttgc cttagcgtgt tcatgtacgg gtccccactc 180  
actgccgtga gaacgggtgat cgcctcaagg agcgtggagt acatgccctt cttcctctca 240  
ttcttctctc tcctcaatgg aggagtctgg gccacgtatg ccataactga caaagatgtc 300  
ttccttgggg tccctaattg aataggctgc ttcttgggcg gcatccagct ggttatctat 360  
gcaatataca ggaacag 377

<210> 11202

<211> 407

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-B6

<400> 11202

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gagaagtcag agcttcatgc gttaaaggct ccggtccatg cggcggtgca ggcatcgcc 120  
 gtgatttcgt cgggcctggg agaggtgaga gacgggacta ggttggggat tgcaggggca 180  
 ttttcaacat ttctctatgg gtccatcttg tcaggggcaa atcatcaaga tttcagcaaa 240  
 cgtgtggcaa accattaatg acgacaaaaa tgagggaaaa tcctgaaagt gcaaagaaag 300  
 atgtggcaaa tcttcaaatt ccccgagaaa aactgtccc cgatgaagaa gccaaacatt 360  
 ctagagttaa ttccaattaa atgagcaagg acagaaccac caaagcc 407

<210> 11203  
 <211> 359  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-044-Q1-E1-B8  
 <400> 11203

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 tttggcagct gcagaagctt gtggtgaact actgcgattg gggagggagc agcaggggaa 120  
 tcagggcttt tatggagtca catcttccag ctttgaagga aaagaatccc cagttagagg 180  
 tagtgacaca gcttgctcgt ggtcagcatc ctaacttgaa gggcatttac aaaaaccata 240  
 acgagagagt ggtttgctgc agaaatttag cacctgagga catcatgttg caagctagta 300  
 ggctaaggty ttctctgggc aggaaagtgg tgaagctgag aaccagacac gtgacgaaa 359

<210> 11204  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-044-Q1-E1-B9  
 <400> 11204

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 tgcattaca cagtcagacc gcccggtttt ctaagtattt ccgccggtca ttaaaataaa 180  
 ttaaaaaatt ttcatgaagt ttccaaataa attttccttg caattttaaa taacaagtta 240  
 taaaataatt taactttcct tgaaaacaat gttccaacat gtattcacia gataattcac 300



taagtacctt aaaaatattc cacgtgtatt aaataaatat tacacgtgta catgtaaaat 360  
gtacaacgtg tataataata ctatat 386

<210> 11205  
<211> 358  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-044-Q1-E1-C1  
  
<400> 11205

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atcttcaagg tgctcaagca ggtgcacccc gacatcggca tctcctccaa ggccatgtcc 120  
atcatgaact ccttcatcaa cgacatcttt gagaagctcg ccggtgagtc cgccaagctc 180  
gcgcgctaca acaagaagcc caccatcacg tcccgcgaga tccagacctc cgtccgcctc 240  
gtcctccctg gcgagctcgc caagcacgcc gtctccgagg gcaccaaggc cgtcaccaag 300  
ttcacctcgt cctaggtccc gcgtgcatta gttcttgtgt ttctttcctg ttccctgt 358

<210> 11206  
<211> 423  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-044-Q1-E1-C12  
  
<400> 11206

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acgagctatt cgagcaactc aaaggtgcta aagttttctt gaagcttgac cttcgtatgg 120  
gttatcatca gattcgcatt cgtgaagaag atattcccaa gacaacattc agaacaagct 180  
ttggttctta tgaatatact gtcgtgtctt tcggccttgt caatgtcctt ccaacattct 240  
ctcgatgac gaatttcatt ttcaaccctt ataccaatga attcgtcctg gtgtatctcg 300  
atgatatatt ggtcttctcc aagaataaga aggaccatgc caaacatttg cggttgggtgc 360  
tcgacaagct tagagagtat aaattctatg cgaagttctc caaatgtgag ttttggctcg 420  
atg 423

<210> 11207  
 <211> 403  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-044-Q1-E1-C2  
  
 <400> 11207  
  
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 gtgtcttttag gttggatcct tccaatctac actattcttc atcagcgacg tttgctgttc 180  
 tgggtgcgctg gttctatggg gccttagcac gaagactttc cgactgtcta ctacaacaag 240  
 ctttgcccgg ctccggcgag ggggggctga tgacggcggc gcgctttcgg cccgcttcga 300  
 tgcttgtaat tatcggtaga tgggtctatga atctgaatgt aatttttatt atttccggtg 360  
 ttcgttgtag tgccatgatt aaagatgaat acatccaatg ttt 403

<210> 11208  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-044-Q1-E1-C3  
  
 <400> 11208  
  
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 cgttgcccgt tttgcaatcc gacactccca catgcaccgg cgcaccccct cttgtctctt 180  
 ttcgtgagcg ggtgtcaaac gttctccgaa tggaccgagg tttgctatgt ggccttggtg 240  
 caccaccggt agaccacctg tcaagtttcg ttccttttgg aggctgcttg atgctccaac 300  
 ggttaaccgg gtaaccacaa aggcctcttg tgtggtgtag cccaacaccc tccaaaacag 360  
 cccaataacc catctaagcc ccctccatgc tctccgcggt toga 404

<210> 11209  
 <211> 369  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-044-Q1-E1-C4

<400> 11209

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agcagcacgg atggatcagc gaaagagatg gcatttttct ctgaccacac atactctttg 180  
acattctccc attgaaagat ctgcgggtta cttcagctct ggcaccattg aggggtgtgcg 240  
ctaattttct ttggcaacta ttgtggcaaa ggctgtagct tccagagtgc taatgcgaaa 300  
gcctgagact tgaagtgtta ttgcttcct tgtgataccc taataataaa tgcatttggc 360  
gacttcagt 369

<210> 11210

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-C7

<400> 11210

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gatgaacatg ttctgcatga tgttttagctg ttactgcaac tttaaaaaaaa aaaaaaaaaa 120  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaataaaa 180  
aaaaaaaaaa aaaaaaaaaa aaaaaaccgg ccgccccaaa ggatcaaacc taacttacc 240  
ttgaatgcaa cttcaaacc cttcaaaatt gtcacccaaa ttaaataaac tgcccttcgt 300  
ttaaaaactt cttaacggga aaaaccctgg cttaacccaa ctaaaccccc ttgaacaaaa 360  
acccctttc acaacctggc ttaataccaa aa 392

<210> 11211

<211> 369

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-D1

<400> 11211

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agaaagacgg tattccacct gttcaacaga ggctcatcta tgctgggaag caactcgctg 180  
 atgacaaaac tgctaaggac tacaacatcg aaggtgggtc agtgetccat cttgtgcttg 240  
 ctctgacggg cggtcagtag atgcaacctc gacgtggacc gtaaaggcca tttctaccag 300  
 aagttgtttg caaacctaaa tctgtgaatt tgccgggtga ttttaagtgc atgtaattga 360  
 cgcatttgt 369

<210> 11212  
 <211> 387  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-044-Q1-E1-D11  
 <400> 11212

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 attgccaaca actcattagc gtatcaggca cgcaatgggt tcgggtgggg tgcaactggc 120  
 ccgcccgcga actcaagggc ggtcgaacaa agcagtgcac caatgctagc tctctacatt 180  
 tcgcatccgg cgtcgtaatc ccattcagta accgccgctc gatgcattac tatactccag 240  
 gggataaacg ccatatctta gccgcacga gacgtggatc tcggccgcga tccggatgag 300  
 gggacgggag atgaggtctt ggctcgtacc ttccggcgacc ttgaaccaat atgccatggc 360  
 aggatcatcg caccagcaag atgatgg 387

<210> 11213  
 <211> 371  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-044-Q1-E1-D3  
 <400> 11213

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 atatcaatcc agaagataaa ggagtccacc tggttccgga aaggtcccgg ggagaacctt 120  
 acagtgaagg agagactgcc aagtgagaat gccaacacgg atgctgttcc aacacttggt 180  
 gtgaggcgca ggaagaacag tcacgaagac gcgaagcccc tggcgggtgac aaattttaat 240

gcctttgaaa tcattctctt ctccacaggg tttgacctct ctggcctatt cgtcgagaag 300  
gagagcaaaa aggaagcaag gttcacttca naacagcctg cctcagccat tgtctccaaa 360  
ctggaaactg t 371

<210> 11214  
<211> 369  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-D6

<400> 11214

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gtggcaaaaat ttcaaggcag ttgtcgagtt ccgatcatgcc ggtgacttcc agtctgagtc 180  
ttccgttgct tctgatgcta gcaactggga agctatcctc aagctgtctc ttcaaaccga 240  
catggcaccg aagatgcaca gcaacgagaa tactggactt tctgttgact catcctcttc 300  
tcaggcacac acggtgtgaa ggtttcttcc atggagtatg gaactggaag gcgtgaaggt 360  
cggaacatg 369

<210> 11215  
<211> 398  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-D7

<400> 11215

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ccctcgaaac tggacgcagg gtatccttcg agtacactct gctagctggg attaacgatg 180  
aaaaggcgca cgctgaagaa cttgcagcgc tgctgcatgc atgtggaggt ggttatcacg 240  
tgaacttgat tccctataac ccggtagaag gatctgagta caagaggccg tacagaaaag 300  
cgattcaagc gtttgttgat gcaactggaat ctcggaagat cacagtcagc gttcgacaga 360  
cccgtgggct tgacgctaata gcggcttggtg ggcagctc 398

<210> 11216  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-044-Q1-E1-D9  
  
 <400> 11216  
  
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 atagtctggc tatggcctgc cgagcctata cctagcagct acttcggact tgttaagcgg 180  
 cttgtatgtg cctgtccgcg gctctaagcc gtgaagcgggt cagtctgtat tgaacgttcg 240  
 catatggcct ttgccgcggt caagacgcat taggcaaaac tggatgccaa gaatctgacc 300  
 aaggggcccgc cggatggcaa tgattattat cgacgcgaac tctatatttga tggcgtcctg 360  
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 g 421

<210> 11217  
 <211> 280  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-044-Q1-E1-E1  
  
 <400> 11217  
  
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 cattctgtcc ggcgggtgctc attgtttcca caccagcta ctattacaac cctatcatcc 180  
 agatgtcagc tttgccaatc aacgaacaga aacgtgaaca tgacgctggg tcttgcaaat 240  
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<210> 11218  
 <211> 412  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-044-Q1-E1-E10

<400> 11218

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acaccagagt tcgaacctct caagggtttg ctagaacccg taatccgaca gaccaagtat 120  
ggagccatcg tgtacattca tgaataatct tctcaggaga agaaccacat ttacgattaa 180  
acaccacatc attcctggta agccacagag ccagcataag gcagccgccc caacaagaat 240  
atgtgcagaa aattgttcat caatacccca caactaattg ctgaacatgt tatgcacact 300  
gtgtgggggtt acagatttca agattcttga actatggccc atactgcgcg agcaaactta 360  
cactcaaaaa atatgtgttt tgatagactc gtcatgttgg caaaagacac at 412

<210> 11219

<211> 363

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-E11

<400> 11219

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ccggaagtga acaacgcggg cacagtcggc atctcggacg actcgtcgta cggagtacgg 120  
ccacggcgac catgaccac ggtatgggca tggctatgat gctcagccgg ttgggctgtc 180  
attatacaca accgtcacc tggccttggc cacgtgcttg gcgcattgct tcggtgactg 240  
aggactgact tccgttgaga actatactgt acctttaccg cagttggtaa tatcacattc 300  
atgtgcgcag caatacatga aatttgaggt cgtgatgctg cttgcagcat acagtatctg 360  
atc 363

<210> 11220

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-E12

<400> 11220

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gcagtgcctt gacaaccttt gcgacacccc tcgagcagag ctcacgccc catggccacg 120

acgacggggt gattctacta cggggcggtta ggatggcgcc acggtgagat gcagggatga 180  
cacactgctt gagcgacgtg cgttggaaat ttcctttttt tctgtgaga tgtgcgagag 240  
gaggaagacg aagatccagt ggctaaccac cggtcgcgcg tgctgaatcg gatggccgcg 300  
caatgaccgg tgccatgtag actccattaa aaaatgtaca cgtattttaa aagatcatga 360  
atthagaaaa tttcttgaaa acataagttt tcttcattaa aagatcatga atttttaaaa 420  
atattcatgg aatttacaaa atat 444

<210> 11221  
<211> 339  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-044-Q1-E1-E3

<400> 11221  
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ttgttagcct caccagatag atgatactaa ctaaattacc ttgtccatta tggcttgagt 180  
ttttgttggt ctcttgggtg tctagctcta gtggctcctt ggacagtata tcgatcctgg 240  
gtgaaaatgt acctgacctg tgacgtgaac attgttcact taattgcttg acatataaaa 300  
gttgtaaagc tggggatgtg caaccagctt caccttcag 339

<210> 11222  
<211> 236  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-044-Q1-E1-F1

<400> 11222  
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tacgctgtaa cactcgcgt ggggcacgtg gaaatccgta tctctaacga catgacaact 180  
tgtttcgggg tttttaccag ggtagacatt tggggctctag caccatcagg gaaacg 236

<210> 11223



<211> 380  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-044-Q1-E1-F3

<400> 11223

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 ggtttgattc ggtttggttc atacgggtttt tggtttatac ggtttttata ctttggttta 180  
 tatggtttta tacgaagata tggtcgggtt tcggttgcaa ccgtttgctt tcggtttggc 240  
 ttccgtaata accaaattaa ccaaagttga cgcgaatatt tgaatggaca agaaacattt 300  
 ttggtcacat gatttggtat gtgcatgtag ccatgtacct aagatttttt ttgtaagaaa 360  
 tgectacgga tattagatca 380

<210> 11224  
 <211> 382  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-F5

<400> 11224

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 gtgacagagg tagggaccaa aagagacaag ccacttttgg atgatacaac caacagaatt 180  
 aataagttac tattcaagat tagatctata cgtatgtgtg gctcttttggc tctaaacatg 240  
 tgtggagttg cttgtggtag gctagatttg tgttatgaga tcggtttttgg tggcccttg 300  
 gatgtggctg ctggagcttt gattctaaag gaagctgggg gttttgtttt tgatccgagc 360  
 ggtgatgcgt ttgatctgat gg 382

<210> 11225  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-G10

<400> 11225

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gcagccagtc aagaggccgt aagcgtgaga ggtcactgag cagagctgat ggtgatgatg 120

ctatggaagt tgatggccag cactctgaca agaagctgcg tatgaggtcg aggtctaggt 180

ccaaatacag accaattgaa gaggttgtac caggtgacgg gatccgggat gttgctcaaa 240

agaagaaggc catcaagaaa tcgagggact ctgtcaagaa caggaacaag gatgctcgcc 300

gtggagaggc ggatcgcgtc atccccacct tgaaaccgaa gcattctcttc tctggaaaac 360

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<210> 11226

<211> 357

<212> DNA

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<223> Clone ID: LIB31-044-Q1-E1-G11

<400> 11226

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ctcgaccaac tcagtggcat ccaactcgcg atgatgtccc catgctgcac tgccgtcaat 180

gtcaaggagg aggaggccga tcgaggagcc ctgatttctt gtaactgogt tggattttcc 240

ccgaaaagga gaggatgaag cagcacaacg acggtaagta tttccctcag ttatgaaacc 300

acggttatca atccagtacg tgaaccaagc aacactatgc tagcggtaac ggcacac 357

<210> 11227

<211> 388

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<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-G4

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cacctccact aataatgact cctgatgaag ttgaagaaat tgtgagcaaa tatggcgggg 180  
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 caatttgctg aaagcctcta gtgatgatgg tgacgacaat gtacagagtg acttgaacaa 300  
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 <213> Triticum aestivum  
 <223> Clone ID: LIB31-044-Q1-E1-H1  
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 aattctgtta atgggaatcg gtgtacatca agaactgctt tgtgcaatgt ggcctaagct 180  
 gttcatccat accgacaact tgcccatgag taataaggcg cctctcaatg tccccctctc 240  
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 <223> Clone ID: LIB31-044-Q1-E1-H10  
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 acattcagag aagttgcttt cttgcttttg tgatattttg gctacacagg tacttagtgc 180  
 agagaggttg tgaccttttg gtcctctcat cttgaacact tgcaccacaa cctcatctca 240  
 tgggtaaaat gactattagt aaattggcac taaaaatgaa tacagaataa gtagaaagac 300  
 atgatgacct catctcacgg gttccatctc aatatagctc aagcttttta gaaactacat 360

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 tgcagctttg 430

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 <213> Triticum aestivum  
 <223> Clone ID: LIB31-044-Q1-E1-H4  
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 tttgatcgat ttccagttaa gcctcctacc tagctgtagc tgctaaaacg gatcggacga 180  
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 tgtcctccct ggtgtatcct gattgctgtt gcgcccgttt gtagtatatt ttttcatcaa 300  
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 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
  
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 tttggccaag taatctagat tcaccttata ttcttgaagg tattagtcta tcagattatt 300  
 aatctatatt tcattttcca agaaatcaaa ggacgagtca aacattgtac gagcttcgac 360  
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<210> 11233  
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 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-045-Q1-E1-A11  
  
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 cacctgctgg gcctgcgcaa agttcttctt ctccatggc atcaacgggg cacacaagt 180  
 atattatttg ttgtcattgt aagggaagag gtcattatgc gagagaatgc aaatcttagt 240  
 gtgtgatgat tgctactaaa gatggtcggg atgagtccac tagtgactat gatgagcaga 300  
 ctttggctct aactacacgt gaacaacatg gtggagatta ttctgattat 350

<210> 11234  
 <211> 400  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-045-Q1-E1-A8  
  
 <400> 11234

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gtttatttgg caacattgta ttgagttcat tctgtccggc ggtgctcatt gtttccacac 180  
ccaactacga atacaaccct atcctccaga ggtcagcttt gccaaacaag gaagagaaac 240  
gggaacaaga cgctgggtct tgcaagttcc gcaaccatga ccacaagttt gaatggacga 300  
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tcagtggcgt tggcggctcg agcgacgaac ctggctatgc 400

<210> 11235  
<211> 419  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-B11

<400> 11235

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aattgaaata cttgtagatg gttccactga ccacctggtt tctggtggtg atattagtat 180  
ggaagagagc acaggagctc caactgcttg gcgtacaggc aggaggacag ccatgcaaag 240  
aattccccgt tctaattcctt taggagcatc aatggactgt ggcaatgaag gcaggcttgc 300  
atatccagac tgggaaatga aaccagtctt cagtaaatac tcaacttctg caaatcacca 360  
ggttaagaaa agcatgtcaa atagcaagca gaggtcatcg gcatccaaat ctcaaaaga 419

<210> 11236  
<211> 401  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-B3

<400> 11236

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gatcaaggat gtgaagacac tcagagggga gcatctgtca cgtgccattg ggcgcctgtc 240  
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 tgctgatacg aagatccaca tactcggatc ctttggttaac atcaaagttg ccagagattc 360  
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<210> 11237  
 <211> 459  
 <212> DNA  
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 <223> Clone ID: LIB31-045-Q1-E1-C1  
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 atcaagtggg atcagatttc cagggttgctc ggtgagattt tacagttttt cgtagtttag 120  
 attgagtctg ttcttcatac ctatagtcca cgaaaaagcc aaaaaattaa ggttagttca 180  
 tcttatccga accaatctga gcctttgcat aatctttttg gtatttgctt tgttgaattt 240  
 ggggttgcat catcgtgtca agttgctggg cctagagtct agtccttttag agtttcgagt 300  
 tcttctcaca agttgtcagc tcgccgcgc accatcgtca tcaccgctgc catataccac 360  
 caccatcatc accgctgccata tataccagca tcgtaatcac cgctgccata taccaccatc 420  
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<210> 11238  
 <211> 224  
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 <213> Triticum aestivum  
 <223> Clone ID: LIB31-045-Q1-E1-E4  
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 tttcaatcat gcattctacc atcatgtta aagatcatgc ttgaagtgtc ccccgctggg 180  
 agaaggatcc aataactttg tggtagctgg attctaactg ccca 224

<210> 11239  
 <211> 370  
 <212> DNA  
 <213> Triticum aestivum  
  
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 acttctccga gctgttcaag tocattgaac attacgagaa gtcccttgaa gccaaagcaat 240  
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<210> 11240  
 <211> 343  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-045-Q1-E1-H2  
  
 <400> 11240  
  
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 tctacttcag gtcaccggtt atgcaagaag ctatatatag acaaacttat atcatatacc 180  
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 gatgagtaat agacatcaga tgtgtagaag tgataatatt gtgaagaaat tttgtcagac 300  
 tttgttttgg cagcattgct gtgaatacag ctcatacgtg gca 343

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 <211> 482  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-045-Q1-E1-H6  
  
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 ccggatgacg acgagttcag gtcgcagtag ctgcaggact acatcgaggc gaccctcgaa 180  
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 gagctcaggc cgggtggctct gcccggaag gtctaataccc agtgatcttg tcacacgtcg 420  
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<210> 11242  
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 <212> DNA  
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 <223> Clone ID: LIB31-046-Q1-E1-A3  
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 tcttgaaga gactcaataa tatgcaggga cggatattct tggctctcaag cacactacac 300  
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 ctccaaacac ccggagcagt tcgacgactg gattacatgt gaacaca 407

<210> 11243  
 <211> 406  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-046-Q1-E1-A4  
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<210> 11244  
 <211> 339  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-B1

<400> 11244

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 aactccgcct tttctgagat ggggttgcaag ctgggtttccc acgtgagctg gaatatcatg 300  
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<210> 11245  
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<223> Clone ID: LIB31-046-Q1-E1-B5

<400> 11245

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 agactaccag gtcgatggat gtctcctaga tcaaccataa gcctggtagc tatgttgctg 240  
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<211> 395  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-C2

<400> 11246

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<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-D2

<400> 11247

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<210> 11248  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-D4

<400> 11248

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 atatgtcgag ataacgctat cgagatttat ttacgttcat cgtgcgctga tgggtggtggt 360  
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 taaaaagaag 430

<210> 11249  
 <211> 395  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-E1

<400> 11249

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<210> 11250  
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<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-046-Q1-E1-E2  
  
 <400> 11250  
  
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 <211> 374  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-046-Q1-E1-E4  
  
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<210> 11252  
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 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-046-Q1-E1-G4  
  
 <400> 11252

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gtggactctg cactcctgga tgttaaccgt gaccaggcgc tgctatgcat cactgtcgca 180  
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<210> 11253  
<211> 382  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-H3

<400> 11253

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cgtctggaac tcgcacccca agaactacgg ccccgatcc agggtttgcc gtgtctgcgg 120  
caactcgcat ggctgatcc gcaagtacgg gctgatgtgc tgcaggcagt gcttccgcag 180  
caacgccaag gacattggct tcatcaagta ccgttaagaa tggaaacctc aaaggaagca 240  
aggactacga aattatcaac gaactgtggt gcttcacga ggctgatctt tctcctataa 300  
gctatgtaat ggactactat tatgtctgaa tcctggtgac aaaaccgtga aaccatgtta 360  
gccactgctg tttgagcatg tg 382

<210> 11254  
<211> 424  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-A5

<400> 11254

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aagctgcgga ataaacggag actagctaaa ggtgagatga cgatgtgtgt tggaagtgtt 180  
tccaagggtg atgtgatcaa gcacgcacatg ctccctctac catcgagatt tgtgtttgcg 240

ttgagcatga ttggattatg tttatcgcaa tacggttatt catttaagga gaataatggg 300  
tactctgttt atttgaataa taccttcaat ggtcttgac ctaaaatgaa tctcgatcgc 360  
agtgatacac atgttcgtac caaaaaaaaaa gggaagagag aaaaaaaaaa gcgggcgctc 420  
taaa 424

<210> 11255  
<211> 324  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-A9

<400> 11255

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aacaagttat atgctcatct actaagagcg ataaattgcg tggaggacaa atttgcacat 120  
ccatgctcag atcattcatt gacaccacaa cgcatacgac gaagcaccaa caaacatgac 180  
gatttatgac tttcaccag gcacagattc tacattaata cttgcggcac ctcaataatg 240  
aacatttatg atgcagtaga tgacacagtg atcaataaaa acaattagtt gaaggtaaag 300  
atgaatgttc tggacttgg attc 324

<210> 11256  
<211> 393  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-B1

<400> 11256

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tggcagctgg ctggagcgca tgtagatcgt taaagaagtg gacgatcgaa gatcatctct 120  
tttccatcta gtatgattat ggtggcaaca tttttggtat cgggttggaa ggtagaagct 180  
gtgcgatcgt atctcagtga cgctttagac tattgaagag tctgcacaaa cacctgaaca 240  
cctattttgt ttctgaaaa ctgaaaagac atgtaaaagc gttgttgttt tccctctttt 300  
gcgaaaagtg tgggtgaaac ttggattaac ttagctcttt ccatgtgtgc agttcaggta 360  
actgcaggag tgccttggtt aaacctgggt atg 393

<210> 11257  
 <211> 268  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-B4

<400> 11257

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 ctgtttgttca cccatccatc gaatcatatt gcgtaggaaa aattagctag tattgactat 120  
 catgattccg tcaactgtgat tgatatcgac tacttctcga tacctgggtgg gtaatgatgg 180  
 catatgtggt cagtcttcgc tcttgtatat tagcttgccc tttgcgagaa tcatcatcgt 240  
 atgcatgtga tatattcggg gttttcac 268

<210> 11258  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-D2

<400> 11258

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 agtagttagg aggatcccag gcaggaggcc tgcgcctctt tcaatctata tcccagtttg 120  
 tgctaacctt cttaatgcaa acttgtttac ttatgtctat actcagatat tgttgcttcc 180  
 gctgactcgt ttatgatcga gcacttgat tctagccctc gaagcccctg gcttgattata 240  
 tgatgcttgt atgacttatt tatgttttta gagttgtgtt gtgatattctt cccatgagtc 300  
 cctgatcttg atcgtagacg tttgcgtgca tgattagtgt acgattgaat cgggggagtc 360  
 acaccctagg agcatgcgta gtagtacttt tcttcgaggg caagtagact tttgcaat 418

<210> 11259  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-E2

<400> 11259



caggggtccag actccctctg aagtaacaga tgcagtgagc agaataaacg ggcagtagaa 60  
 gatccccag cccaacacat atgcagagac cgaatccata accaaagacc accgcgctcg 120  
 ccgctcatgc gaggagcccg acgccgccag gccgtctcaa aaagaaacag gtgccgccac 180  
 ccgcctcacc caaatcggtg cggaacaaaa tgatcgcaac cccagctagt aaagcatact 240  
 atcgatcgac acgtgcggtg ggaagtattg caatgggcca catgtacatt cgagtagatc 300  
 gacacgcccga gacatgacga gcaacacggt tgcagggaag atttagcctg caggtcacaa 360  
 cccactatc aatctaggag cccccctct 389

<210> 11260  
 <211> 349  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-047-Q1-E1-E6  
 <400> 11260

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 cgatgccccg ccacttgatg tacgacgggc aggacgacaa cctgtttgag cacttcaccg 120  
 cgggtggctca acggctgggc gtctacagcg ccatatacta cgcggaacatc ctgcactttc 180  
 tgggtgcagac gtggaacgtc gccaacctca ctgggctgtc tggggaatgg aggcggaactc 240  
 aggatttcct ctggccactg ggaacaaggt tcagggccct ggtggagcca actcagggtg 300  
 gggcgacaca gttaccggtt gttcctttca actggattca tggtcggca 349

<210> 11261  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-047-Q1-E1-F2  
 <400> 11261

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 cctctcagt ctcggtggag gatctggaga ggctcgctgt tgacgggctg atagcgggatg 120  
 gatcttggag gctgccggaa ggggagtcgg agcccgcgcc gcgcgacggc gagccggttc 180  
 tctcagcagac tcatgaagaa agacgtttct cgcttcccc acatccattc ttccacgggtt 240

tcgtgaattt cttcgggtgcg cagatccatc acttttcccc aacaccactt tgtaccttgc 300  
cacatttggt togatgtgtg agaagttcct gggatgccac ccacattggg gggtattcaa 360  
acatatTTTT acctgttgat ctgagtcggt gaacagagcc aatctgacta atga 414

<210> 11262  
<211> 113  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-047-Q1-E1-F4  
<400> 11262

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ttaacttcat caatgccct tgattgcgt atatagtntt gttcagtcgc gca 113

<210> 11263  
<211> 436  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-047-Q1-E1-G12  
<400> 11263

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ccactgcaag ggcaccctca agctcgcgaa ttacaactcc ttcgaaggag tgctctactg 120  
caagcctcac tttgaccagc tcttcaagag gaccggcagc ctggacaaga gcttcgaagg 180  
cactccaaag gttgtcaagc cagaaaggaa tgttgggaat gagaatgcta ctaaagtctc 240  
gagcgcattt gctggcacca gagagaaatg ttttggacgc accaagacgg tctatccaat 300  
tgagacgggt actgtgaata acaccatgta ccacaagagc tgcttcaaat gctgccatgg 360  
agggcgcacc atcagccctt cgaattacat cgggcacgat ggaaagctct tctgcaagca 420  
tcaccaaacc cagctg 436

<210> 11264  
<211> 361  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-G2

<400> 11264

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cgatagaaaa gaaaaacaaa cccaagcacc agcacgaccc ttcctctcga tcccatctgg 120  
acctttagta ttctcgggaa tatatctgat tatgaagatg ttccgtaatg ctctggagcc 180  
gacaactttt tggactgctc gatgtctaata accaatgata ctacgttttt ggggtgttggc 240  
tgtaggctgg agctatcagt atgactgaaa ttttcatttc accagtgtaa atttatacgg 300  
acatcaatag acagcgacac gtcaatactt gtcaccagtt tgcaatttgt agtacagtat 360  
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<210> 11265

<211> 340

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-H11

<400> 11265

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ggaagttgcc taggactaca gaggctaaca atggcgaaaa ggtgagagtg cgtgtaatcc 120  
atggactcaa cattagtcat aaagcactca tatacttatt gcaccaatct attaatactc 180  
aagacatagt actacacgca tgctcctatg gggatacttt gctacgacaa tatcatcgct 240  
cgtccccgac cgccactcat aatgaatata agcaccatac atctcatgct ccaacatcgt 300  
tacataaggc ttcaccatac gtgcatgcta cggcactcac 340

<210> 11266

<211> 408

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-H2

<400> 11266

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tgaaccacaa agcaacctag acgataccag agagagagag agagagagag atggtaagtg 120

tagtgcagtg cacagaccgt tatcgtcagc gtcttgatc atcaacctga cctcgtcgag 180  
cgtaaagtgc tcgccggcct cgatggccag ccgctggatg tccatgtccg gcctcgatgg 240  
cctcatctgc ccgaaagatg acatggtgag taacccccaa tctgggacac ctcagacgat 300  
gacagaagag agaggaggag tcatgagact gtgatagcct ggttttttgc cttctctctt 360  
tttttcggac tttcttttgc atctactttg gattttgagt tttgagtc 408

<210> 11267  
<211> 387  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-H4

<400> 11267

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acgtcctctt ttgcctcaag accttaaaaa gaaggccctg aatatccaga tagcaagcat 120  
tgtgtgttct ggtattcaac ctcttcacaa tctcacttg gtgagattta tcgaacagaa 180  
ggttggaaca ggggagagca tcccggtgggt ccagcaacag attgatatag gtttcacagc 240  
tggtgagaac atgatcaaag gctgtgctgg gaagtttgct atgggatatg agatccaact 300  
ggcatatgta atccttgcac cccagatttt tgctgcggtg actcggttaac aaacggacat 360  
gtcgaactat cccaccctcg cgaggct 387

<210> 11268  
<211> 262  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-H6

<400> 11268

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tcatagatct taggctcgaa acatagtatc tcaatggata tcgctcgctc gatgattctc 120  
aattcagatg ttcgcgctcc tcttcgtggt gatattctcg aggttactct ttttgtggcg 180  
tgtatgatca tctgcactgc agtattgttt aagatcagat tgggtgatgg gtactatttg 240  
tatcgcatca gtcggccttt aa 262

<210> 11269  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-A6

<400> 11269

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 ggcagcgcctg gggaccggca agtcgcgagt tcttacctcg aaggcgatcat tctggcaaac 120  
 caagataagg ataacttccct cgtgccttac tttcccgagt atgtcctccc ctcaaccggc 180  
 ccgtaacata tgaattctta catttcgacg gtttttcttt taacattccg tgttttctgc 240  
 agtgacacac gttgcacgct catcctccta agccccaat attctatggc caggtatttc 300  
 gacccgaacc gtcagtcaaa cgtagactac acaaagtca agaaggttct tgatgatgtt 360  
 ctccccggct acgccaatc tggaggcacc ttcaccaggc ctattcgtaa gtacggcaag 420  
 cacgtgttct cccacaatac 440

<210> 11270  
 <211> 359  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-003-Q1-E1-A7

<400> 11270

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 ccgatcgagc cagaaataac gctggagctg atgatggctg caaactacct cgacacttag 120  
 cctggaaaac tgcattggtg ttgacaagat gaatccatcg tccatttggg ttcattcagt 180  
 agaagatgcg atgttccacc attgtgcttg ccatgtctca gtatatgggt ttagtaaaact 240  
 ataaactact aaggttgcca tggatgtatt gcgcggtag tagcatgaat ctgtcgtttc 300  
 tggacttaac agcttggccg ggatcagatc ntgtgtgtgt gtcatatcaa tcaaaactg 359

<210> 11271  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-A8

<400> 11271

cctgccggta cccgaccgag attccccggg cactacatg acacttaacc attatttggg 60  
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taaaccctag tttatgtgtt gcttcgtag gggttgatat ggacccatat gtttaatgct 180  
gtggtaggt ttaccttaat actccttttg gtagttgcgg atgcttgcaa tatgggttaa 240  
tcataagtgg gatgcttgct caagttaggg cagtaccaa gtgtcgggtcc accacatat 300  
caaattatca aagtaccgaa cagaaatctt atgaacgtga tgaaaactag cttgacgata 360  
attcccaatg tgtcctcggg agctcctttc tcattattag atttgtccag acttatcctt 420  
tgctacataa aggattgggc caccttgctg cacttta 457

<210> 11272

<211> 140

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-B11

<400> 11272

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acaagcgtgt gatcgatagg ttcgagaacg aagccgctga aatgaacaag atgtctttca 120  
ggtagcctg ggtgcttgac 140

<210> 11273

<211> 461

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-B8

<400> 11273

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ggtttgggtt caaccttggg tttcttcaact agagcagcaa ctgatttgcc gtttcatgaa 180  
gtatcccttc ttgcccttta ccttcttgaa actagtgggt tcactaacca tcaacaattg 240

atgctccttc ttgatttcta ctttcgcggt ctcaaaccatc atgaatagct aaaggatcat 300  
catatatatc cctaatatgt cattgttcat ctogaagctc tagtagcttg gtgggtggtga 360  
ctttggagaa acattactat cccatctgga agattaactc ccacttgatt caagtgattg 420  
tagtactcag acaatctgag cacatgctca atgattgagc t 461

<210> 11274  
<211> 316  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-C1

<400> 11274

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cggggactaa agctggtaga ctgtttgaat ggaaggctct gtgctgcaac aaaaccttgc 120  
cctagtagct atatgcaatg cttagcactg aactgctgtg acaatgttat gttaccgtaa 180  
catgtgtggg ctatgtctgc ccattgtgtt gtgctactac tgtaaaccaa ttgcgtgggt 240  
gcgtagttt gcttggacca ttgcttgtat gcagctacaa gttgctaattg aagtacctac 300  
tctaacctcc ttttgt 316

<210> 11275  
<211> 428  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-C2

<400> 11275

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acaaccagat agaaaggaaa gggggaaaaa gagggagaga agcaaccgtg agtactcatc 120  
caaagtactc gcaagcaagg agctgcacta catatgcatg ggtatatgtg taaagggcca 180  
tatcggtgga ctgaactgca taatgccaga ataagagggg gatagctaatt cttgtcgaag 240  
actacgcttc tggctacctc catcatgcag catgtagaag agagtagatt gaagtcctcc 300  
aagtagcatc gcatagcata atcctaccgg gcgatcctcc cctcgtcgcc ctgtggaaaa 360  
gcgatcaccg agttgtctgt ggaacttgctc tgggtgtgtc ttattaagta tccggttcca 420

gttgatcat

428

<210> 11276  
<211> 400  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-003-Q1-E1-C3  
  
<400> 11276

gggccgaatt aacgggtcga cgccttctac atgcgtgcaa agatcttggg cagcgtctggg 60  
gaccggcaag tcgcgagttc ttacctcgaa ggcgtcatte tggcaaacca agataaggat 120  
aacttcctcg tgccttactt tcccagtaa gtcctccct caaccgccc gtaacatatg 180  
aattcttaga tttcgatcgt ttttcttta acattccgtg ttttctgcag tgacacacat 240  
tgcacgtcga tcctcctaag ccccaaatac tccatggcca cgtatttcga cccggaccgt 300  
cagtcaaacy tagactacac aaatgtcaag aaagtcttg atgatgttct ccccggtac 360  
gtcaaactcg gaggcacctt caacaaggcc tattcgtaag 400

<210> 11277  
<211> 436  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-003-Q1-E1-C4  
  
<400> 11277

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ctttcccagc tttggttgat tttgtcatgg ggatactttc caggcttgtc aataagcaga 120  
tctggaaaat gccaaagctg tgggttggt tcttaaaatt ggcataccag acccaaccac 180  
gctcttttga tgttttacta cagttacctc caccacagct tgaagttgca ttgaataagt 240  
accgaatct tccatcacat ctttcttctt ttgttaatcg gcagaacttg cacaacaagt 300  
tgcccagaca tactttgaat attttgggct tccttaacga accacagcag gcaccaatgc 360  
catttgcgcc cgctgcatta caaacagcag acacgacttc ctctcttctt ggtgcaaaca 420  
taatgtgaaa tctgat 436



<210> 11278  
 <211> 348  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-003-Q1-E1-C5

<400> 11278

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cctggaaaac tgcattggtt ttgacaagat gaatccatcg tccatttggg ttcattcagt 180
agaagatgcy atgttccacc attgtgcttg ccatgtctca gtatatgggt ttagtaaact 240
ataaactact aaggttgcga tggatgtatt gcgcgggttag tagcatgaat ctgtcgtttc 300
tggacttaac agcttgggcy ggattagatc ntgttgttgt gtcatatc 348
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<210> 11279  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-C6

<400> 11279

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gacgggacac ctttgcctct atcaagtggg atcagatttc cagggtgctc ggtgagattt 120
tacagttttt cgtagtttag atcgagtctg ttcttcatac ctatagtcca cgaaaaagcc 180
aaaaaaaaatt agggtttagt catcccatcc gaaccaatct gagccttgca taatcttttc 240
tgtatttgct ttgttgaatt tgcgggtgca tcgtcgtgct cagttactgg tcttagcgct 300
tagtctttta gagtttcgag ttctgttcac aggttgtcac gtgcgcgctg ccatatatca 360
ccatcgcatc atcatcgctg ctgttgccat ataccaccac cacatattca ccgccaatcc 420
gaatccatat acgccaccac atatccg 447
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<210> 11280  
 <211> 230  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-C7

<400> 11280

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cagaatgcat ggtattcgga agcttatcct ttaagccaag acattctttc cttgatgcag 120  
gtaaaacgat gtcacatgct tggctagatc aatggccatc catcatctat cataaatcaa 180  
ggtatgttaa gccagacttg cacattcttg ggacagatgt atcttttcat 230

<210> 11281

<211> 399

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-D1

<400> 11281

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ggataacatc atgctgtcac ctccactaat aatgactcct gatgaagttg aagaaattgt 180  
gagcaaatat ggcggggccc taaaggccac agaggaaaga attgaggagc tcaaatcagc 240  
caagaagtga gcaatgccaa tttgctgaaa gcctctagt atgatgggtga cgacaatgta 300  
cagagtgact tgaacaaata aataccaata ataacaccgt gagcctgaaa attgatcctg 360  
atgtggaaat ttcagttctt atttaccatc tccagtcac 399

<210> 11282

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-D11

<400> 11282

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caatgcgcct cttgaagatg gtatggccgg cacatctctt gcagccatgg acgaagctgt 180  
ttggttggtc tggagagggc tggttacca ttgctgaagc atgcgatttc atgcattgat 240

tcgacatgtc aagttccac aatataacaa tgacctgtac atatcttttg tagccttatc 300  
ccatgtatga catcatgtac atatgtgcca aaatttgatc cgattccacc atattcgaga 360  
tcaatatgta tccgccatgt tacaatgatg aatccaagtc aatctctcca tcaggaagat 420  
acatatTTTT aatgc 435

<210> 11283  
<211> 432  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-003-Q1-E1-D2  
<400> 11283

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gttgggcaag caaggaaatg atccacgtta cctttcctaa gtgcaagatc attgtgctgt 180  
ttctgggtcc agcgaggatt cgacagcaca tggtagcacc cttgtctacg gcggtacaac 240  
atccccggaa cctccgatcg tctcatcttc gtacctgtct catgcgtgtg ccccgtagc 300  
gtctcgagag ctccccgtcc gttacctatc tccgtccggt gcaagccacc gacgccatga 360  
actgagattt ctgtagggtc ctctgggaa tctgtatcgg ttttaactttt atcctagatg 420  
gtttgtacct cg 432

<210> 11284  
<211> 391  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-003-Q1-E1-D5  
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atctcttata tatgttcgtt tcaaggcagc agctggggag ctaaaaccgg ttttcaatga 180  
gattgaaagt agatcctcta agaaagagta tgcgcagact ctttcagaat gtcacagttt 240  
gttttgtgag cagaggctgt acttgatacg aggtacggtg cagcaacgca tttctgagtt 300

tgctaaaaaa gagaccttac cttctttttac aaggctctggg tgtgcctatt tgatggaagc 360  
atgccagttt gagcacaagc tttttgctca c 391

<210> 11285  
<211> 453  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-003-Q1-E1-D8  
  
<400> 11285

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gaacttgaca tagttggaga tgtgatcgtt gtggatgttg agaggggagt ggctggagga 180  
gggagcagcg gaggaggaga gggcagcggg ggtgatggag gatgtagccg gagcagaggg 240  
agaggtccca gaggagaggg cggcgaagga aggggagtgc gccgccggtg agggaggtgg 300  
gttgaagaga tcctcgaaag ccatagcagc tgataccaag ttatgggatg aattatgtgt 360  
aactcgcag tagctcacag agagattaca tataggaggg agacctcaac ggctccagga 420  
agttaggcac gtcctaagcg tgcattggctc tat 453

<210> 11286  
<211> 346  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-003-Q1-E1-E1  
  
<400> 11286

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agcaggggtct tcctcaaaaa cctccagact gatgacactg tcttcaggaa ggtgtctcga 120  
tctgttcact gcgcgttccg tgcagtcacc ctaagtggca acgggaccaa gggcatgaaa 180  
ctcgccgacg cggctcctggg gcgcacgagg gctaccaagc tcaccgaccg cgtaatgaaa 240  
gcacctgacg tgctgatcac agtagcaacg atatcagaac acgttccactg gcccggtgga 300  
caatcatctc ctctaataga cgtgctttgt ttatgctgcc ttcggg 346

<210> 11287

<211> 463  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-003-Q1-E1-E5  
 <400> 11287

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acatggatgt tgaaagtctc aagaagatga acaagaacaa gaagcttggt aagaagctag 120
ccaagaagta ccatgctttc ttggcatcag aggccataat caagcagatc cctcgtctcc 180
ttggccctgg tottaacaag gcaggcaagt ttcccactct ggtagtcac caggaatctc 240
ttgaagccaa ggtcaacgag acaaaagcta ctgtcaagtt ccagctaaag aaggttcttt 300
gcatgggtgt tgctgtaggc aacttgctga tggacgagaa gcagatccaa caaacatcc 360
aatgagcgt caacttcctt gtgtccctcc tgaagaagaa ttggcagaat gtgaggtgcc 420
tgtacgtgaa gagcaccatg gggaagcgtg tacgtgtgtt caa 463
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<210> 11288  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-003-Q1-E1-E7  
 <400> 11288

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gccactgac acaatcgaca gaatcaagga acgtgttgag gagaaagagg gtattccacc 180
tggtcaacag aggtcatct atgctgggaa gcaactcgct gatgacaaaa ctgctaagga 240
ctacaacatc gaaggtggtt cagtgtcca tcttggtctt gctctgaggg gcggtcagta 300
gatgcaacct cgacgtggac cgtaaaggcc atttctacca gaacttggtt gcagacctag 360
atctgtgaat ttgccggttg attgaagtgc catgtaattg acgcatttgt gaagtcagct 420
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<210> 11289  
 <211> 453

<212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-003-Q1-E1-E8  
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 attgaggcaa atgatgggaa gccattgccca cttgttcaga aagcttttat tggcttgact 180  
 gctggagcga ttggcgcgatg tgtgggcagt cctgctgatt tggcactcat taggatgcaa 240  
 gctgactcga ccctaccagc agcacagcgg cgtcactaca agaatgcatt ccatgcactc 300  
 taccgtatca ccgctgatga aggcgtcctt gcgctttgga aggggtgcagg cccaactgtg 360  
 gtgagagcca tgtcactgaa tatgggtatg cttgcgtcct atgatcaaag tgttgagctg 420  
 ttcagagaca nattgggtgc cggagaatat cag 453

<210> 11290  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-003-Q1-E1-F11  
 <400> 11290

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 aaaaccgaac tagaaacatg tttttttctt acttctttac ctatttttct ctttacgaga 120  
 ggcacctccc gcggaagcaa atctttgcct ccacgagaag caaatatgtg tctcttgcag 180  
 aaggaaaaaa aactctgaag cacaactgtg cctcttgcgg aagcaaactc gtgcctctta 240  
 cagaagctac aaacatatgc ttccatgaaa agtaaatttg tgccttttagc gaaataaaaa 300  
 agatgtgttt gtgcctcaag cgaaaggaaa tcggcgccta tcgcggagta aaaaaaagtg 360  
 tttttccatg caaaagaatc atttttcgtc caaatg 397

<210> 11291  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-F4

<400> 11291

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agccggggagc cactccgtgg tggttatcct ccagccaaat cgacccaggg cgcgctcccg 180  
cggcgaagcg tgtggcacga ggagcacaat aaaatgggat cggctaggtg tagtcaactg 240  
aaaattatat ttccgtgtca cttgtttata tgtgtgaatg atgcgagcc acgaaagaac 300  
aaagcctgcc ggacacagct atgctatgcc atgctactct cttgcgattt gctgtaattt 360  
tggagggaga aagcgcgagg agagagagct tgtgagagag accgtgttgt gtacgtacat 420  
gtcagagaga tttaatgaga gagagggaga ga 452

<210> 11292

<211> 462

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-F5

<400> 11292

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gaggctgaga agattgtcca gatcaagcgt gccgaggggtg aagcagaggg caagtacctg 180  
tctggcctcg gtatcgcccc ccagcgccag gccattgtgg atggcctgag ggacagcgtc 240  
ctgggcttct cagtcaatgt gcctggcacc actgcaaagg atgcgatgga catggtgctg 300  
atcaccagct acttcgatac tatgaaagag attggcgcgt cctccaagtc ctggcggtg 360  
ttcatcccc atggccctgg tgcggtgctg gacatcgcca cgcagatccg tgacgggtctt 420  
cttcaaagcc agtctgcctc tgacaactag cagtttgctt cg 462

<210> 11293

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-G1

<400> 11293

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ttagtTTTTg taacaaacaa ctctaggaag tgcagaagggc agtattcaaa gaaattcaaa 180  
acacttggcc ttgaagttac tgaagaagag atcttcacgt catcatttgc agcagccatg 240  
ttcttgaagt taaataatTT ttctccagac aagaaagttt atgttggttg tgaggatggc 300  
atcttggacg agctcaagtt agctggcttt gaaatgtttt ggtgggtccg atgatggcac 360  
aaaaaacata atgttggagg cgaactttca ctttgaccac gacaaaaatg ttggacctgt 420  
cgttgttggg 430

<210> 11294

<211> 378

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-G10

<400> 11294

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gtgccgaggg tgaagcagag gccaaagtacc tgtctggcct cggtatcgcc cgccagcgcc 180  
aggccattgt ggatggcctg agggacagcg tcctgggctt ctcaagtcaat gtgcctggca 240  
ccactgcaaa ggatgtgatg gacatggtgc tgatcaccca gtacttcgat actatgaaag 300  
agattggcgc gtctccaag tctcggcggt tgttcatccc ccatggccct ggtgcggtgc 360  
gcgacatcgc cacgcaga 378

<210> 11295

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-G2

<400> 11295

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 cctccgactg cggcctcctc cgcgaggact acctcgagtg cctccaccac tccaaggagt 180  
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 aggccaatga agaagccgaa ggagctcctg ctgttgcagc tcaccactag catcgctttt 300  
 caattttttc ttatgctttt gtttgcgtca agtgcttcca tggtcggcta tgagcaatgc 360  
 aataattacc taaacattct accctcccaa ctccatgact tggtctgaga gcatgagttc 420  
 gataaactac cttgggcat 439

<210> 11296  
 <211> 394  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-G4

<400> 11296

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 ttttagcaaa atcagtttta agaggatttt tagggaaaaa acagtttaag ttgttggttt 180  
 gtagagtgtt ttgtttgggc ttaaaaactt caaatatggt actagtttgg gtgagactag 240  
 tattgaatgg attttcatct cacaaccgaa tgtccacgag ctctactcg gcctcctggt 300  
 tcccgaggtc gtgctcggcc tctgttccc gagctcgtag tttggcctcc tgtcctggag 360  
 ctcatctcg gcctcctggt ccacgagctc gtac 394

<210> 11297  
 <211> 370  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
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<400> 11297

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 tatgagacat cctgctggag actgcacctc tgacagatgg atctaagacg aagggtctcc 180

gacacaggca gctgcagatc catggtgttg agctcactgt gactaaaatg attgctacac 240  
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 acattggcat catgggagct tgtaccgtaa tgacatttgc cgctgagtca gactctgtct 360  
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<210> 11298  
 <211> 352  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-003-Q1-E1-G8  
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 tattaggcca ggactatcaa catcccttca tcaactggat aggagtatcg acagatactg 240  
 cgtagacggg gacttcacac ttaccgccgt attttttttt agaagttttt ttagataatt 300  
 aatacagtgg ttgtatgcat cgcccatatg caaaagccgg ggtcttctct tt 352

<210> 11299  
 <211> 377  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-003-Q1-E1-G9  
 <400> 11299

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<210> 11300  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-003-Q1-E1-H1  
  
 <400> 11300  
  
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 acttcgccc ggtggatacc tgggccaagg aggcggtcga gcctacggac cagcgcgttg 180  
 gcatccagcg ggccgtggac aaggcgaacg gcggcaccca tgcgaacggc aggcgtccgg 240  
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<210> 11301  
 <211> 230  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-003-Q1-E1-H12  
  
 <400> 11301  
  
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 gtaagatcat gcttacgttg tggcttgta aatattgtga cttgttaaata aaagcttctg 180  
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<210> 11302  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-003-Q1-E1-H2  
  
 <400> 11302

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 tgcaacattt tgcattgtgt cccgggggtg acgagccagg cagaccgcc agtcggcgctc 240  
 ttctcccat gcttggctgg tttgattgca acatgcgggt cgtgcttcgc tccatttgg 300  
 ttgattgcat attttcgaaa tgtcgcttaa agacattggg aagtccaaa aatatgttat 360  
 ggggcacatt tttggccacc aaatatatgc cgtctagttc cctaaataat atagttgata 420  
 attatcatga tacatgtgtt taca 444

<210> 11303  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-003-Q1-E1-H3  
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 tccacgattc aaagcgctca gactttggat ggaatggatc caccttttag acgcatcata 360  
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<210> 11304  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-003-Q1-E1-H5  
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atgtcaatat aactatatta aagaatgtat gtagccaga ggaagaaacc aaagctgaca 180  
tgctctaatt tgacagtcaa agtaagtcaa cgcattagaa gacaagcata aggatgacaa 240  
ttatcaagac tgccaaactg aagactgggc gggcatttat acggtgttgt tagtaaaata 300  
cttgctcact tcagcacatc atgtctggac cctcagtttc aaggttttatc aactaattca 360  
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<210> 11305  
<211> 334  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-H6

<400> 11305

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gatatttcac cttcctgtct ccaggaaggc ctctggttca tcctgtacat ctagcatggc 180  
tgttcattgt attttagttc tttctagtga gctcttatca gtgcagagaa atgatgctct 240  
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<210> 11306  
<211> 391  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-H7

<400> 11306

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gtctgccga agtgctacgc caggctgcat ccaagggtg tcaactgccg caagaagaag 180  
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cgttattgcc gctttcattg tctggataaa tctgtagaca taaaatgttt ctgggttatc 300  
 attttgctgc tcatgtcagg atgttgaacc ttgtttaact ctagatgagt acttggcctc 360  
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<210> 11307  
 <211> 289  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-004-Q1-E1-A11  
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 atgattcagc ttcgacaact tgctatacac tgcgttgccc aggtcccaga cgcccgctcg 180  
 acgatgtccc aggtcgctcg gcggatcgag gagatcaaga tgccagggtg aagcaccgag 240  
 gaagctgata aggaagagca gagccccctg aatcaggggg attaaaagg 289

<210> 11308  
 <211> 470  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-004-Q1-E1-A12  
 <400> 11308

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 aagctttata tgcaactggg acgaagctcg gctccagcca atggatttca gtgcattccc 180  
 tactgtttac cctaaagtcc ctcaacaaga taacgatatt gattgtggca ttttcactat 240  
 gaaactaatg ggatgggtgc caaggaatcc aaccctata gttttttcac caaaaaatgt 300  
 cccagatgca aggatccgat atgctgttga tctcatgttc agccactaca acactttgga 360  
 tgacgagaag aagcgtgtca aggagttccg cctatagaca tgaaaaagtg ctgacagctc 420  
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<210> 11309  
 <211> 461  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-004-Q1-E1-B10  
  
 <400> 11309

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tggttgcgat aggggtctgta tagtcgaggc atttgtgatt tgatcgtgca ctctgatgcg 180
acttcgaggc cgtgggttag gtctagtac gtcgttctga ttttatggca atgtttggtt 240
ccttgagatt acaaagttat attcagtttc cattgtcggg tcgccggtga aaatagagtt 300
ttgatctgta tgtttacgat tctagtatc taatttatgc tttgtgaatt atgagtcaga 360
ttaattgttg tttgacgact gttegcatta ttgtttttct gaacttgtag tacgttgcac 420
cgtcaggggt ttgatttatt tattttataa accgtggagt a 461
  
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<210> 11310  
 <211> 354  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-004-Q1-E1-B11  
  
 <400> 11310

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cccatttcgg aatatattgg catgcaactt tcgaccaatc cgtttatcaa gacacattca 180
tcactgtcat attgcttacc aggatcatgt acttgacata gtatttgtcg gtcagccatc 240
gtgtacaagt ccttcaggca tgtcactcgt ggatcagtgc ttatcacggg tcagtgcggg 300
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 <211> 222  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-004-Q1-E1-B9

<400> 11311

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cgatccgggt cgaacatgat ttgggattta ggaactactt gaggcccaag tgttgacca 180  
aggacccttc ccaatcaaaa ttgagggtga acacacacca tc 222

<210> 11312

<211> 427

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-C11

<400> 11312

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ctcatccgc tagccactac tacatacagc tatgagtgc actataagtg gcccggtata 180  
tttaagcaga caccgaagtg ttgaactttg ataaaaattt aggggtatac aaatattcaa 240  
gacatatata cttttggaaa tgtccggaca ttgtataaag tgtgagcact ttttgagaat 300  
tctgaatact ttaagaagtc aactattttt tgaagaagca atcaagtttg aataatcgaa 360  
gacttttaca aagctgaaga atgcgaacac cttttgaaaa tttgtaaact gggaactaat 420  
tttgaaa 427

<210> 11313

<211> 396

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-C12

<400> 11313

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catggtggac aggatctcta gtcatacggg ggacctgcta atagcctacg tagacttgcg 180  
cagttgaact ctaagggttg tcttcaaagg taactcagca atctgaacac gtgctcttgc 240



tttagtcgcg atgatatctc atgcaggtat tgatcatcat cgtagcatct ggatgggcat 300  
 tcgaaagtga cattcgatcc gcagcagcta cgtcgtcgcg gtagatactg ccaactgaatc 360  
 tatgatgagt gatctagtcg ccatggctag agatga 396

<210> 11314  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-004-Q1-E1-C9  
 <400> 11314

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 aagaaaatgg aaaaatgcct cttgagattg cgcagcacca gattatccca gcgacaggcc 180  
 accttagatg agtgatcgag catgggcagc atcaaggcac ctttcaagag ctaagagcag 240  
 gggttcagct cgcttctgca atgactagcg ttgtcagctc acgactagct ggtttcttgt 300  
 gacgtaccac ggatctttct cacaaccggg cgtgcagaaa tcctaacaca gtagaaccat 360  
 gaaggcatcg acaattgggt taacaaaatg atcactaaga agtgtttggg ttgtaaaatc 420  
 tgtgttcctg ttttgttact ggtgt 445

<210> 11315  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-004-Q1-E1-F10  
 <400> 11315

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 ataaagagga cttgatactt taatgctatg gttgggtttt accttaatga tcttttagtag 180  
 ttgcggatgc ttgctagagt tccaatcata agtgcataatg atccaagtag agaaagtttg 240  
 ttagcttatg cctctccctc aaataaaaatt gcaataatga ttaccggtct agttattgat 300

tgcctagggg caaataactt tctcgtaaca aaaagctctc tactaaaact aattgagttg 360  
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 atccanaaac acctacataa tacttctagt ttcatacttg 460

<210> 11316  
 <211> 67  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-F12

<400> 11316

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 gtgtaca 67

<210> 11317  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-H10

<400> 11317

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 tttgatcaag gccatggagg aagcagatgt gaaaaccaa tgggagaaca gctcatgggg 180  
 taagaagctt gttgtccaga agagaagagc atcgctgaat gactttgaca ggttcaaggt 240  
 catgttggct aacattaaga tgggtggtgc gatcaggcaa gagcttgcca agctcaagaa 300  
 ggatgttgct gcttacatta tcttagtgga tggcatgttg agttttttgt tccaagttgg 360  
 atctgctcta tgttccagtg ttcttaaagc cagaattagt acaactgttt tcggagaact 420  
 acttcatatt ttgtcatg 438

<210> 11318  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-B12

<400> 11318

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gcaagtgtca cccagggctg tagctccatg gtgttttgtc cggaggggca gttgcatgtg 180  
tgccactagg catgcatatg caagtgttcc cctgactgca actctgtgtt gtttttgttg 240  
gggggggctag gttagtgtgca tgtttgtcat taggcacaca actacaaatg tggccccata 300  
ttgcaactgg atgtgtacaa tgtgattgca actcaacggg atttggatat ggaggagaag 360  
ttgcatgtct accaccagac aaacaactgc aacttttata cccccctttc tcgactacaa 420  
ctgtatgcca tcaatatgac t 441

<210> 11319

<211> 330

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-C11

<400> 11319

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gacacacaac acacgccatg cagaagaagt tggcgaggac gatgcctgga acgaagcacg 180  
ggacatggag atcgttggcg gactgggagg cgagctggag cacggacagg agacgggtgga 240  
gctcgtacgg ggcgaggagg actacatggc cgcggcttgc aggtgagcac gtggcagtca 300  
ttaatttgat ctaggtcagc actcccagcc 330

<210> 11320

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-E10

<400> 11320

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cacctcatca tatgatatat acatggtgga ccccccaaa gaaagcaatg gcaataaggc 180  
aacggaggat aatcccctcg agaagcaatc taagcaccga cgtcatcagc gccatagcaa 240  
aagtagcgat accggcacaa gagacaataa cactacggat agtgccgaag acaaagacaa 300  
tgccctccag ccagccttcg agcaggagga tgggcaagct agccctaaga aacaggcgac 360  
agatggagaa tcagaagatg acagtcacat atccctc 397

<210> 11321  
<211> 401  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-005-Q1-E1-E12  
<400> 11321

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gcggctgcac aggtaagctt ccggccaatg gggatatccat ccgtctcttc gtggctgggt 120  
gaagctttcc gcaagatgtc atggcgcttc tccatgcac ccgggcatcc gctggtttcc 180  
agggtgcccg tcaaccgtcc tccaccagc agtgaatttt gaagtccatc ttgagcttga 240  
cgtcatgggg ttgtcatcat cttgactctc acatttcctt tatgaatcac tcaaccaacc 300  
ccgtctacga gcatagcaaa gtagactaca tcgtcccggg cattgggtac aaggagagaa 360  
gggtcatcct accccatgaa actacttagg aacattactt a 401

<210> 11322  
<211> 370  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-005-Q1-E1-E9  
<400> 11322

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catctccgcg ttcacggtgt tccatgagac gttcatggca gagtaccgtg actaaactgg 180  
tgtaacatgt gtgggattac atgcgagcct cgtggatttt ccctaggcgt ttttgcccc 240  
gttgacagca gtatcatgta gacgagacaa aataaagcaa atccatggct tgtgtgtgtg 300

atatactata tcagattctg aaacagatta ccagtcagca cagaggtggc cgggcgaggt 360  
gcgggtgggg 370

<210> 11323  
<211> 434  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-005-Q1-E1-F9  
  
<400> 11323

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cggagaggac acgaacaacg ggagccagca gttggagggg acggagaccg agaccgagga 180  
ctacaccaag ttcacggtgc tgaagctgaa gcaggagctg accaagcagg ggttcggcgc 240  
ccagctgctg cagctgaaga accccaacaa gaaggacatc gtcgccttgt atgagaagca 300  
cgtegttggc ggcgcttgac tgcctcttcc tcaacaatat gtaacacatc attttaactc 360  
gtgtgcta at tctagatttc gtgcagcgtt gtgtgctggt gacacgtttt aggtcagatt 420  
gtgaaacagc atat 434

<210> 11324  
<211> 438  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-006-Q1-E1-A5  
  
<400> 11324

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tttcattata gtggacacca ccaacgatct aaaagcgctc aagggtttcgg gcttgaaatg 180  
cccgaatctt gtcaacatcc agcactacta caaggtctag gggagagaca acaacaaact 240  
gaactccttg gttgacctca cctcggccat cgccgacccc tactatacga agatgaagta 300  
agagagcaag aagtacaaga acgcctagca cagtgtttgg catgagagac tcgatgaaga 360  
acacgtcaag tacatggcca aggatgcgta cacaagctac gagatgtaca ggcggattgt 420

tgacatgagg aactgtct

438

<210> 11325  
<211> 402  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-006-Q1-E1-A6  
  
<400> 11325

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gggctaactg ccgcccttcc ccatgctcct ttctatccgt tccacagggga agagaacttc 120  
tggctgcttc tagcggacac cgcgtcaaac gaagtttggg tatcccagaa aatcagcttc 180  
atggacgagg ctaccgccat aactgcagcg tcaaaageta tacaagatac ccaggaagca 240  
ttgggagcaa gcccaaagga aataggaatt gcagttaggg aggcgggttga cagagtgaag 300  
aaaggcagta ggctggatgat gggcaagttc caagcccat cagagggcaa ccacaacctg 360  
acgtccttct gcttgtgcga cgcattggata ggctgtgaca gc 402

<210> 11326  
<211> 433  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-006-Q1-E1-A8  
  
<400> 11326

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agcacaaatgc taagttctcc ttatcaatta tccaaacacc gttgtatggg taatgtcatg 120  
aaatttctct ccccttacct aaagattttt ctatgttata tcctgtcatg gatattcatgc 180  
cctgcttgtc cttgggaagg aatacccccc tgaaatatgt gtttaaacac attttccttt 240  
ccattgttct gtttaacctg ataatacat tttcatttcc attgtottgt ttaacctttc 300  
ttgaggctta tatgatctaa gcagtaataa tttgttgctt atgtaaacac cctgggtgtac 360  
aacottgtcc gtaagacaat gttactattg ctgggtgacat tttggtaacc accgatggga 420  
caaaactttg cct 433

<210> 11327  
<211> 399  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-A9

<400> 11327

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agatgaggaa ggctgattta ttattcataa atgcatatcc tacctgacca gatctgctgt 180  
ccaggtcgta ccaaacggct cctgtttcgt cttcggcgag gatagctata gtgacagatc 240  
cgatgacttt gcgtttgcat acattgtccc agtcataaac tgttatgggt acctatccag 300  
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ggcatatctt gttttcgtg aaaacgtctc agtttcagc 399

<210> 11328  
<211> 441  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-B2

<400> 11328

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ctcctaaggc tgttgcaaag tttgcagccg tcgctgcatt gtgcgtccaa tacgaagccg 180  
acttccggcc aaacatgagc atcgtcgtca aggcgtcca gccctgctg aacgcgcgag 240  
cagcccaccc cggggctgaa cacgctggac gctaagctgc actccggcct tttgtatgat 300  
ataatagata aggaaaaatg agccatcaat tgttgttctt gcggggcatg tggcaggcgg 360  
ttttgtaca tttgtgatta ttcttcccaa gttgtaaccc tcgagattct agtgacagaa 420  
atatttgatt ctttgtatcg g 441

<210> 11329  
<211> 437  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-B4

<400> 11329

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tagtttagat cgagtctgtt cttcatacct acagtccacg aaaaagccac acacaaaaaa 180  
ttaggggttag ttcatcatat ccgaaccaat ctgagccttt gcataatctt tttaggggtt 240  
tgctttgttg aatttgcggt tgcacgctcg tgtctagttg ctgggtcttag agtctagtct 300  
tttagagttt cgagttctgg tcataagttg tcacgcgcgc gccgcacat catcatcgcc 360  
cctgccatct accaccagcg cttatccgcc accgcttcga atccgtatcc atataccacc 420  
acagctgtca tatacca 437

<210> 11330

<211> 456

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-B5

<400> 11330

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taccaagat ggcacgtaca caaattggcc aaaagaagaa acaaaagtgc cttggccgag 180  
tgctacagca aggaacggag actatgaaag ctagctagat gtgatttgga gttgagatta 240  
gctagtacta gtcagccggc ggagattttt ggtgtggcgc gtggtggcag actaaacctg 300  
tgagatgtct ggtgcctcgc gtaacgcaaa gcctggtagt agatggcaaa cagcacagc 360  
gtcagacaca gataactgtg cgtctggctg ttcgcgtaac gcctgagtgc ggtaatgtgg 420  
agagcgatcg taatcaacac ctggcttttt ttttgg 456

<210> 11331

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-B8



<400> 11331

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ggtggctgca tctcttcgtc agtaaaactct cggcttgggt cctgacagtg gaaatgaacg 180  
tcccggatgg atttcaattc aaaactaatc agtttcatct ctactgtata cttagaagta 240  
ctattaaaaa ggagtcgcg gttgtgatgg tcgtaatggt ttcattcacc ctcccgctcc 300  
accttgcttt tcttcatcga aacggttggt cacatgaaag agtgtgcatg atggccctat 360  
ctagtgggtga gtggactgtc tattgccatt catggatagc ttgattgggt tgtcgt 416

<210> 11332

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-B9

<400> 11332

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aaggctctct cctcctctc ctaagatgca gatcttcgtg aagaccctta ccggcaagac 180  
catcaccctt gaggtcgagt cctctgacac catcgacaac gtcaaggcaa agatccagga 240  
cagggagggc atccccccgg accagcagcg tctcatcttt gctggcaagc agctcgagga 300  
tggccgcacc cttgcggact acaacatcca gaaggagtcg accctccacc tggttctcag 360  
gctccgtggt ggtatgcaga tatttgtcaa gaccctcact ggcaaaaacca tcaccctcga 420  
ggttgagtcc tcagacacca 440

<210> 11333

<211> 433

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-C10

<400> 11333

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 cagggtttcc tagattagat ttattttctt acctattgtc caagaaaaag ccacaaaaaa 180  
 gttagatcta ttcatecttt gtccaagcta gtctgagcct ttgcaatttt cttttcattg 240  
 cttgcatagt tgaattatcg gttgcatcgt cgtctcgagt tgctggctctt agtgtctagt 300  
 tcatttagag ttctgagttc tgttcacatt agtcacgccg ccgctgcacg gttatccctt 360  
 tcgctgtcca ccagccatcc atcaattttcc accacgtgct acccacggtt cattggcata 420  
 atcatagttg aga 433

<210> 11334

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-C11

<400> 11334

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 aaaactctag atcaatttgt catggatgct catgttgagg aactgatgaa acctgaaaag 180  
 tttgccggtg acaacttcaa gagatggcag tccaagggtg gtcactacct cctgtccaag 240  
 ggctgtggt ggattatccc acaggttagg ccgctgactc gtcagcaggt aatggacttt 300  
 gagttagcaa acgacactgt tgtggctgtc atcttgctgc tccttgagaa ccagctctat 360  
 gatgtatacc atgggtacac ctctgcaata gagctttggg atgcgctgga tcgcaagtac 420  
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<210> 11335

<211> 432

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-C2

<400> 11335

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aattgtcctt aggaatctgg aacaccatca ggcagggact tcaacctgaa aacacaatgg 180  
cgagcacaag cgcgactaat tctccaacag ggtatgactt ctaacctttg gccccagaat 240  
ggatgcaaac tcgcgggttaa gttgtcgccg gcatttgaag ctgccgcgca agctgtgacc 300  
ttggaacttc caccttgagg agaactgtca gaagagatga atgaacgttc aaccggcagc 360  
tgttgagtgt gcaattttcc tgttgtttgt ctgatgtgta aaagtaactt aaaaagtgtt 420  
agcgttagca tc 432

<210> 11336  
<211> 447  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-006-Q1-E1-C3  
<400> 11336

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ggtatgaggg gagactgact ggaaaaggca cgcttggaag ggactcaata atatgcaggg 120  
acggatattc ttggtctcaa gcacactaca tagttctaca gaactctacc ttggtgacc 180  
cgtatgtcga tgaacacaag aacagcctgc gtcctaaaca cccggagcag tgcgacgact 240  
ggattacatg tgaacaaatc aggactttca gcagttgggtt ggaagcacgt atcagaggtg 300  
ataacactgt ttgtgatgag ctgtacttgt tgtccagggg accatctttg actgtattga 360  
tttggaagg atacgagata aatgggaata cattttacac gattgaccaa gatcaaaaga 420  
gcaccaacca aaacagcggg gtccgct 447

<210> 11337  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-006-Q1-E1-C4  
<400> 11337

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cggaggcatc atcgagccat cctgcaggc gcttgcccgc aagtacaacc cggagaagat 120  
gatctgccgc aaatgctatg cgcgcctgca ccctagggct gtcaactgcc gcaagaagaa 180

gtgtggccac agcaaccagc tgaggcccaa gaagaagatc aagaactaga gtgccactag 240  
tcagtttcat gggccggttg aatccatcgc gtgtcggagt ttatgctatt atcgtctcgt 300  
ttgtcgttga accttatttt actttgcttt cagcctcgta tcgttgtggt gataattgac 360  
agtattggta tatggtagca gacctataat ttgcccgtat ctctctgtt tgttctgcgt 420  
tctgtttaat tattgactgg ttggc 445

<210> 11338  
<211> 431  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-C5

<400> 11338

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cgagctgcca ggggtgttga gcagctgagc gggcagtcgc cagttttctc caaggcgagg 180  
tacactgtca ggtctttcgg cattcggcgt aatgagaaga ttgcctgcta cgtgacaatc 240  
aggggtgaga aggcaatgca gcttctcgag agtgggctga aggtgaagga gtatgagctc 300  
ctgaggagga acttcagtga cactgggtgc ttggggttg gtattcagga gcacattgat 360  
cgtgggatga agtatgacct atctagcggc atctacggta tggacttctt cgtgggttctg 420  
gagcgagctg g 431

<210> 11339  
<211> 466  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-C6

<400> 11339

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gggcagcgct ggggaccggc aagtcgcgag ttcttacctc gaaggcgtca ttctggcaaa 120  
ccaagataag gacaacttcc tcgtgcctta ctttccaag taagtcctcc cctcaaccgc 180  
cccgtaacat atgaattctt agatttcgat cgtttttctt ttaacattcc gtgttttctg 240

cagtgcacaca cattgtacgc tcatectcct aagccccaaa tattccatgg ccacgtattt 300  
 cgacccggac cgtcagtcga acgtagacta cacaaatgtc aagaagggtc ttgatgatgt 360  
 tctccccggc tacgtcaaatt ctggaggcac cttcaccagg cctattcgta agtacggcaa 420  
 gcacgtgttc tcgcacaaca cgacgttctg gtgcgtcaag cagccg 466

<210> 11340  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-C8

<400> 11340

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 ccaagataag gataacttcc tcgtgcctta ctttcccgag taagtcttcc cccaaccgg 180  
 cccgtaacat atgaattctt acatttcgat cgtttttctt ttaacatccc gtgttttctg 240  
 cagtgcacaca cgttgcacgc tcatectcct aagccccaaa tattccatgg ccacgtattt 300  
 cgacccggac cgtcagtcga acatagacta cacaaatgtc aagaagggtc ttgatgatgt 360  
 tctccccagc tacgccaatt ctggaggcac cttcaccagg cctattcgta agtacgaaa 420  
 gcacgtgttc tcccacaata cgacgttctg ctgcgtc 457

<210> 11341  
 <211> 341  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-D11

<400> 11341

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 gaggcgatgg catcggtcgt tagaacttat gatgggttatg agatctgttt ctagacgcga 180  
 ggtagaattt tgggtgtccc ctgaagttgg gtagtagagg tgggtgttgg tagcttttgg 240  
 cccggggcta tctgtagtgt tcaacgttat tctgcacctt ttgtttacga gtaaattgta 300

tgtgctttgc acgtcactta agtatataag agcatgggaa a

341

<210> 11342

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-D4

<400> 11342

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ccaatgaaaa ggtagacttg caactgggat gaaaaacaaa acacatgctc tagttgtgag 120  
tagaggggtga gcttgcaact tggacaacta cgagcctagt cttgagtcga gagggacttg 180  
cacctgggac aactatgaaa ctacaagtca gttacgagtc aagggtcgaca tccggcaagc 240  
ggtcgcagca atgccagta gaagtctgaa cagagcagac ctagagtata tgactagaaa 300  
ggaacaagtg gatggggaaa gaagagcgag aaaaagatg gtggccttgac ttgttggtg 360  
tgtgcagcaa aaattactag aaaatgatcc agcagaataa ggacaacttc caac 414

<210> 11343

<211> 459

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-D7

<400> 11343

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aagatccgca tcataaatgg gccaccattt cggcctgcta agaccagtgg gttatttggc 120  
acaatcaggg cctaattctca ctttcggtct attaaagtcc catgtttttt atgggctcga 180  
gatatttaca cctgtaaacg gcctattttt actgagggcc caaattatgt ttaggcctgt 240  
taaaggccaa ctacgggcac atgcctacca gaaaaatatg aaagcttatg ctgatttagg 300  
cccatatatt tttagtggct acatgccaat tttggcccggt agtcgttttt agcccaattg 360  
gaatgggctc aacgaatatt ggcagtgttg gctcctacga agctttcggc cgaatacatt 420  
actaagataa acctacacta tacaaaaata gcgtcgtaa 459

<210> 11344  
 <211> 316  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-D9

<400> 11344

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 tgttgtcgat gccccagct gcaggtcgag catcgactcg caactaaggg tgcttttgtg 180  
 tgtttgtcta gagtccccag ttgcatgtcg atcatcgact cgcgactagg tgtgtgtgtt 240  
 tgttgagggg ctccagttgc aagccgacca tcgactcgca actagaggtg tatgtgtttg 300  
 ttgaggggtcc acagct 316

<210> 11345  
 <211> 423  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-E1

<400> 11345

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 tggccaagtg ttcgtcgatc tgcaagcctg tttaagagct ggattggccg gtccaattca 180  
 acacggagct gtgtgtatgt tgaaactttt cgtccatcaa gcgtcgccct gccgcctccg 240  
 accgccccga cgacgccctt gccttcgcca acctccactc ctccatgagg tgatttgttt 300  
 cttgcaattt ggaagaggaa gatgatgaaa cgtggttggt atctatcaat atgccttggt 360  
 ttctggttgt acttcatagc tagttacatt gtattctgta ctggtctggt tgtatgaaca 420  
 cta 423

<210> 11346  
 <211> 297  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-E10

<400> 11346

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acgggtggac tgggtccatcc tcacacatcc attgaagatc ttgatgatct gtccacactc 120  
ctccaagtcc ctcttgtcgc tggaaaccgtg aaccgtggta ccgagggtcat tgctgcgggc 180  
atgactgtga acgattggac cgccttctgt gggtcataca caacgggtac cgatctgtcc 240  
gtcatcgaga gcgtcttcaa gttgagagaa cgccagcccg caacgatcgt cgatgac 297

<210> 11347

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-E12

<400> 11347

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agaggaagac tttgttgctt gggggcctga aaaaagtgga gtttttactg tacgtagtgc 120  
gtataaactg gctagtgatg aatgctcaaa tcctaataaa gtctctacaa gttcccggcc 180  
ggatggaaca agagaagcat ggaaatttat atggcaaagt tctgtaccac cgaaggttca 240  
gtcttttctg tggagggttag ctacagattc gctagcaaat tggacaaata aagtgaaaag 300  
gaacttgga gttctcaggta catgccttgt gtgtgggatg gaggaggagg actcgttcca 360  
tgtgttttgc acctgtaata atgctgtgtt cctatggaag gccatgggga acgaatggac 420  
attg 424

<210> 11348

<211> 434

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-E2

<400> 11348

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agattgtcca gatcaagcgt gccgaggggtg aagcagaggg caagtacctg tctggcctcg 180



gtatcgcccg ccagcgccag gccattgtgg atggcctgag ggacagcgtc ctgggcttct 240  
cagtcaatgt gcctggcacc actgcaaagg acgtgatgga catggtgctg atcaccacgt 300  
actttgatac tatgaaagag attggcgcggt cctccaagtc ctctgcggtg ttcattcccc 360  
atggccctgg tgcggtgctg gacatcgcca cgcagatccg tgacggtctt cttcaaagcc 420  
agtctgcctc tgac 434

<210> 11349  
<211> 465  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-E5

<400> 11349

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ggctgagaag attgtccaga tcaagcgtgc cgaggggtgaa gcagaggcca agtacctgtc 180  
tggcctcgggt atcgcccgcc agcgccaggc cattgtggat ggcctgaggg acagcgtcct 240  
gggcttctca gtcaatgtgc ctggcaccac tgcaaaggat gtgatggaca tgggtgctgat 300  
caccagtac tttgatacta tgaaagaggt cggcgcgctc tccaagtcct cggcgggtgtt 360  
catcccccat ggccctggcg cgggtgcgca catcgccacg cagatccgcg acgatcttct 420  
tcagggccag tctgcctctg' acaactaagc agtttgcctc gcta 465

<210> 11350  
<211> 442  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-E7

<400> 11350

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ccggtgatat ggtcgatgat tggttggatg atcagataat tgagcccgag gaacaatgag 180  
tggttgctga ggctgtaaac ccgcctccag ttgaatacgc ctggcccaac ggagctggga 240

tctttctcga acacgaagca gccatagcca tcaatgtcac gaacgcccc a tgaattgtac 300  
 tgcattgtgt ttgatgtaat ggttttgtca atttggtacg tgcgaatgag catcaaata 360  
 ccgccgtcag ctgaacgagt gataaaccac caccattga ccggtatgat tccaggtcct 420  
 ggaatcatga agcccagcac at 442

<210> 11351  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-006-Q1-E1-F3  
 <400> 11351

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 aacgtgaagc cagtgtccaa gtcctgaag acagatttct agaccaagac cgccctagca 120  
 aaagtggcat gatatacaat acatcttaca atatctgtca cagcaccatc aacaacatac 180  
 agattgtctt catcttcgtt atcgtcgtga ctcccctgga ttttcgttgt ttgttgtaa 240  
 atttatctcc ctccgtagta gtatcgtgcc cccccgcaat aatctgtgcc tagcagagct 300  
 gagccgagct gaagtagtag ggctgtgttg ttgtgtcca tccatgtcag tgtacatatg 360  
 attagcccggt gtaaagctaa gttttatatg ccgtgtaatg tggtagtgtc gttgggtcag 420  
 aggaagttat tgaccgctg ttgttttt 448

<210> 11352  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-006-Q1-E1-F7  
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 acggacaatg agaaaaagac cggatgcatg agatgaacac gaatgcaaat gagatgcaca 180  
 tgatgacatg atatgaaatg catgacatga acaaaatgca aatgaaaga caaaaaccca 240  
 accacgaagg aaatatcata tcacatagcc ggaaatggca agagttggag ttacaaataa 300

ggaaagttac atccggggtg ttaccacact ccaccactac aagaggattt cgtcccgaga 360  
tctaggactg aaagaactcc ggatatttat aacagatctg atcctcgtgt tcctagggtg 420  
cttctcggtc gaaatgggtg gaccacttca cgttca 456

<210> 11353  
<211> 425  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-006-Q1-E1-F8  
<400> 11353

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tctctaaagg aagaaggaga aacagaggaa gggaaagggg gccggcggcg agagggaaac 180  
cctaggggcg cgggttgctg gatttatagg agggccagga agcatcgagg ggtcgcgggtg 240  
aaaccacggg ggccatgtgt gggcaccct agaggtttta ctgtgagaga aaagagatca 300  
ggaggaggaa gaaaaaacag gggaaggaga ggctgcaggg ggggcctgga cgggtgtcca 360  
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ctggt 425

<210> 11354  
<211> 344  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-006-Q1-E1-G3  
<400> 11354

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cttaccggca tcggagacga ggacggcgta tggggagcca tggcacagac aatgtcgaac 180  
aaacggtggc caacagcaag gggagcacca gatccgccgc aaacaccgcc gcctcttccg 240  
ccgccgccgc ctctacgttg atctaaaatc gcagcccggg ccggtggtaa aggagtaaga 300  
aaaaaagggg gtactggtaa tggtagacca attgaaaaag gggt 344

<210> 11355  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-006-Q1-E1-G6  
  
 <400> 11355  
  
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 gacctgaagc agagatatga agacatcaac attatggatt gaccgcttcg agaagagcaa 180  
 ccaagattca gaacgctcgt tagaatttcg taaccaaatac ctttccccct cacttcccct 240  
 cataaatctc gggacgagat ttcttgtagt ggaggagatt tgtgacaccc ggataattag 300  
 gctacagtaa tcccgcgtta acgatgccac gtcacctcgg ttactgttgc taatctcgcg 360  
 ttagttcgaa accgattcaa attcaaatac aaaatcaagc aaacaataaa agttttcaaa 420  
 tattagaact aaaatgtatg gagtgagcca aataatgttt 460

<210> 11356  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-006-Q1-E1-G8  
  
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 aatatgatga tactacaaac ctgtatcatg gaaccctttt gtttacctgt ttgttatggc 240  
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 ggtaggagta tgtacctgct atataagggg gtctagctat tatcatcaga tccagagtct 360  
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<210> 11357  
 <211> 363  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-006-Q1-E1-H11  
  
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 gcccatgtta ttcacagtc atgagtggac ttgggctctc acctttcaca ttggtgccgc 240  
 caacaggttt tgtgctgctg gtcgagtgcg agctgctttg gcggacgacg acctcgatgg 300  
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 agg 363

<210> 11358  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-006-Q1-E1-H2  
  
 <400> 11358  
  
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 ttctcgagc tgggataagg tttgtggc 388

<210> 11359  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations

<223> Clone ID: LIB31-006-Q1-E1-H4

<400> 11359

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tgcaaagatt ttggtgacga ctttgatgct gatgcgttca atgggctgtg caagcttggtg 180  
gtgaacgtca aggtgaagga agttttcctg tagaggaagt catttgggag atcaagctta 240  
ctatgaagac agtttgtgtt gtgtgtgtct cccggagtcg atgagcttat tactgccttc 300  
gctttagta actagtacta gtaagcaatg catagcagac ctttaagttta tattatcggt 360  
gcttggattt aaatcctgga actggaaggt tgcattttgc gtgatgcctg agctctttct 420  
cccattcacc ttgatgaaga actg 444

<210> 11360

<211> 434

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-H6

<400> 11360

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caccggcagc aactactatg tgccggtcct cagcaccatc aaccgcgagc tgctcaagcc 120  
gtcggcgtcc gtcgccctgc accgccactc caacgcgctc gtctatgtgc tgccgcccga 180  
ggccgactcc agcatatcgc tgctcgcttc atcggagaag cccaacgtcc tatattcgga 240  
cattggagga tgtgatattc acaagcaaga aattcgggag gcagttgagc tagcattgac 300  
acaccatgag ttgtacaagc agattggtat tgatcctcca agaggggtgc ttctctatgg 360  
tcctccaggc actggcaaga ccatgcttgc taaagctgtg gcacatcaca ctactgctgc 420  
ttttatcaga gtgg 434

<210> 11361

<211> 415

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-009-Q1-E1-A4

<400> 11361

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aggaactgaa tatctggtgc agccgcttgg ccgtgctgaa gacgaagagc attccagtga 120  
ctttgagcca gaagaaaatg gtgatggtgc tgaggacgag gagattgagg atgatgatgc 180  
tgaggatggt gaggattctg tcaaggcgca atcctcttcg aagaggaaga ggtctggcgc 240  
ggaggatgaa gatgatgatg acggtgatga tgatggtgat gatgatgaga agcctccatc 300  
aaagcgatag tcaatttggt cttgctgacg tggatatctt tctgcttgng ccaagaagga 360  
aaataatcct cacggagaag gttgttggtg aatgctgtag ctttangaca tctgt 415

<210> 11362

<211> 440

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-009-Q1-E1-A5

<400> 11362

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gacttataga tatctgtaca ctcacaaacg cattagtccc ttaacctata agtcttcaat 120  
acaccaaagt cactaagggg cactagatgc acttacaaga ataatttgag gtgtcttttc 180  
cccgagcaa cgggcgcacc gtccttatcg ttctttaccc gcgagtctcc cgcgccgtgt 240  
atttcgacct ttccagagac tacgagaaaa aggactacac ccacataatg aatattctag 300  
atgatgctct ccaaggcttc agcattagag gtggccacat gcagatcaag aaacagagga 360  
acaagaagat gggtttcgca cataaaacta acttctcctg catccatgtc ccaaaaccaa 420  
ccaagaatga tggattctac 440

<210> 11363

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-A7

<400> 11363

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gacgggacac ctttgccgct atcaagtggg atcagatgtc caggttgctc ggtgagattt 120  
tacagttttt cgcagttaat atcgagtctg ttcttcatac ctacaggcca cgacgaagcc 180  
acagtataaa aattaggggt acttcatcat agccgaacca atctgagcct ttgcataatc 240  
tttttagggg ttttgctttg ttgaatttgc ggttgcatcg tcgagtcaag attgctggtc 300  
ttagagtoga ctcgtttaga gtttcgactt ctggtcataa gttgtcacgc cgccgccgca 360  
ccatcatcat cgccttgcca tctaccacca ttgcttatcc gccagcgcgt tgaatccgta 420  
tccatatgcc accaccg 437

<210> 11364  
<211> 452  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-B1

<400> 11364

tggtagtct gcagggtccg gtccggaata cccgggtcga ccccttctac atgcgtgcc 60  
agatcttggg cagcgtggg gaccggcaag tcgaggttc ttacctgaa ggcgtcattc 120  
tggcaaacca agataaggat aacttctcgc tgccttactt tcccagtaa gtcctccct 180  
caaccggccc gtgacatatg acttcttaca ttctgatcgt ttttctttta acattccgtg 240  
ttttctgcag tgacacacgt tgcacgtca tcctcctaag ccccaaata tccatggcca 300  
cgtatttcga cccggaccgt cagtcgaaca tagactacac aaatgtcaag aaggttcttg 360  
atgatgttct ccccggtac gccaaatctg gaggcacctt caccaggcct attcgtaagt 420  
acgacaagca cgtgttctcc cacaatacga cg 452

<210> 11365  
<211> 450  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-B10

<400> 11365

taccggtcca gaattcccgg gtcgaccagc cattagcttc tgaaagtaat gattacacaa 60



actcctggcc tggaaatact tttcaaccag acgttgggtct tggatctatc ggcttttagct 120  
 cttcttcaca tgattaccag tcttctgctg caaaacactc agtgccacta tcagtggata 180  
 accatgtgcc tgccatggga acaggagctt tgaacagttc ttacagtcac catatggcag 240  
 gtagtgggaa ttcaacctct gttgctgggtg acacgcaacc gatcatgagt gatgcttttt 300  
 atattgaccc tgatgataag tttatgggca gttcttttga tggactgcct tttgatttca 360  
 tcggtattaa tagtccaatt cctgaccttg atgaactcga tgaactgccg gatgacaatg 420  
 atttgatgca atatctggga acgtaatcca 450

<210> 11366

<211> 402

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-B2

<400> 11366

ggtcctaaat tcccgggtcg acctgctgga agagggccag ttcttagcac tcagccggtc 60  
 cgccatctac cagcagggtt tgcgccatta ccacaaccgg aagggtcaagc caagatcctt 120  
 ccaagaaggc gatcttgtgc tccggctgat ccagcgaaca gccggccagc acaagctctc 180  
 ggcccattgg gaaggccctc tcgtcatcag caaggcccta ggcaacgatt cctaatacct 240  
 gatcgacgca cagaagccga aggcacgcaa gagggatgat tctggcaagg agtcggaacg 300  
 accatggaac gccaatctcc taagaagatt ttacagttaa aagcagtatg taccacgcta 360  
 ccttttgtat taagtacaag acaacggggc ccccgagggtg ca 402

<210> 11367

<211> 402

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-B3

<400> 11367

cggtccggaa ttcccgggtc gacctccgt tgcttctcgg caaggcatcc aatggaagct 60  
 ttcccctatg gtcattgggtc atgttctcgc cctttctctt tttcatccat ctgtttgtgc 120  
 tgttgccggag atttgtgaaa aatgagccct tgtacaccga gatagcagac ggagtgtatg 180

ttggaggctg gccttcttca gttgaacgcc tgccacctgg tgaacccgca gtcacgcatt 240  
gcacgtgcga gctgccaaaga agctcaacta tatccgagaa ttcataatttg tgtgtcgcta 300  
catgggatac aagggcgcct cagccaccac agattgagtc agcgggtgcgg tgggccgtga 360  
gaaagcggtc acagaacaga cctgtgtatg ttcactgtgc ct 402

<210> 11368  
<211> 380  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-009-Q1-E1-C11  
<400> 11368

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gagcgtgctg aggtcggcca aggaggtgag ggtggtggag aagaaccagg agcttgattg 120  
accagccaaa catccaggca gtcagaagca taatcattta gatgcttttg gcatctgcc 180  
tagctatgga agcttggttt agtataagcc aaggctggag aacgttgatc agttgctatt 240  
agtcaattgc ttttgccggc taagtgtatc gatcgggtgtg tgtttttgtg tgatctccca 300  
tggctttgtt gactctaattg tcaagatcaa gcttagctgc tatcggtata tactagtacg 360  
tactactact actattta 380

<210> 11369  
<211> 372  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-009-Q1-E1-C3  
<400> 11369

gggtcgactt ccatcaatgc gatattcagc atctcatcga ttgacgggac agctttgcat 60  
ctatcagggtg gtagcagatt tccaggttgc tcggtgagat ttacagttt ttcgtcgcta 120  
agatcgagtc tgttcttcat acctacagtc catgagtttt gccacaaaaa aaaaattagg 180  
gttagttcat catatccgaa gcaatctgag ccggtgcata atcatttttag ggtttttgca 240  
ttgttgaatt tgccgttgca gcctcgtgtc aagttgctgg tcttagtgtc tagtcattta 300  
gagtttcggg atctgggtcat aagttgtcac tccgccgccg caccagcatc atcgcccttg 360

catctaggag ca

372

<210> 11370

<211> 421

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-D2

<400> 11370

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tcggttgctt acaagaatgt tattggtgcc cgccgtgcct cgtggcgcat catttcctcc 120  
atcgagcaga aggaagagag ccgtggcaat gaggaccgtg tcacactcat caaggactac 180  
cgtggaaaga ttgaggttga gctcactaag atctgtgatg gtatcctcaa gcttcttgat 240  
tcccaccttg tcccctcatc cactgctcca gagtccaagg tcttctacct aaagatgaag 300  
ggtgattact acaggtacct tgcggagttc aagagtggaa ctgagaggaa ggatgctgct 360  
gagaacacca tgggtggcata caaagctgct caggagattg cactgaaaga gctgccccga 420  
c 421

<210> 11371

<211> 426

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-D8

<400> 11371

ggtagcggac cagaattcgc gggtcgacgg gaaaccaatt gcgatgacag aggatcatcg 60  
agtagtcagt accacagaac gagcgaggat agcgaaatta gggaatcccc tgaaagatgg 120  
cgaaagccgt atatgtggac tgaatctttg caggatgctt ggagacaagt ttctcaaaga 180  
gcaagatcca aggttcagta aggaaccata tgtgagccca gtagttcaga tctcgaaatc 240  
atgctcagct tttgcgctta tcgctagcga tggcttatgg gatgtcatta ccgcgaaaaa 300  
ggcagcacag cttgtcctcg attataagga gaggaacatg ggccaagaaa tctcagcgga 360  
cggagtagca gaccatgtgc ttagtgaagc caggaatctg cggacgaatg acaacacatc 420  
cgtgat 426

<210> 11372  
 <211> 225  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-E1

<400> 11372

gtccacgcaa ctccttaaag tgagtcgtat taccacacct tcctcgccgt gcctacaaca 60  
 tggtcacaac tgtcaaaccg gaagcggtcc tggttaaatac tacgtttcat cgctacgtag 120  
 tcaatgttgc atgtcactgg tgtgttttca cgctgccgca atgctatgaa aacgcgatgc 180  
 aagcagcttc tcaaacttgt atcgttgtaa cttgtatgac gccag 225

<210> 11373  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-E3

<400> 11373

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 cagtcctgct aagccaggca ggtggatcga tgtaaatacg ctccgatggt gctcagcagc 120  
 tggatctgtg gaaaataaat ggtctggact tcgattatat tgaggaagac aggttaaaga 180  
 tatacagatt gcttactggg aacatacaag gcgctttact tgattcacca atcgactgga 240  
 aaaggtagct tgggttaatac atgtggatc agttgtcacc agatacatca cttgatatta 300  
 tcattcggtg ttatcaccaa ctacttgggt agggcaaagt tccaaatcct gttcctgtat 360  
 acatcgatga aggacctctc gaggaagcaa ttcagtgggc ccaggtgac cggtttgaca 420  
 tacctttttt 429

<210> 11374  
 <211> 224  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-E6

<400> 11374

tcgtagttca acgcaacacc ctatactgag tcgtattaga gccggcctga ccttgtegat 60  
gacaaccagg acgtcttcat gcatgtgcc ctaaggacct gcgttcgga gccgcaatcg 120  
tcggcattga gtctttaaat cactattgag aacctgacac cagatcgac tattgcattc 180  
acacgatgag aagacctacg ttgtttcaag aagatgggca gatt 224

<210> 11375  
<211> 389  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-009-Q1-E1-E8  
<400> 11375

actcgtgggt cgacgcgatg cccaatcgtg agtcgtatga tggattgtc ggcaaatatg 60  
gtacccgtta tgggtgccagt ttgcgtaagc agatcaagaa catggagggtg tctcagcact 120  
ccaagtactt ctgtgagttc tgtgggaagt ttgctgtgaa gaggaagca gttggaattt 180  
ggggatgcaa ggactgtggg aaggtgaacg ctggcggtgt ttacactatg aacactgcca 240  
gtgcggtcac tgtcaggagc actatccgtc gtttgaggga gcagactgaa gcataagttg 300  
ctactaatgt tttgtcctag tgaatcatct gggatttcgc agtttagacg ataccttgga 360  
ttcagttcca ttggctgttt agtcaagga 389

<210> 11376  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-009-Q1-E1-E9  
<400> 11376

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ggtgctcaag ttacacaagt agtttgtgtt gaggatggag tagctttgcc tcacacagct 120  
ttggcgcttc catatggtgg agatgacata tccagatgcc tactttgggt tcaacaacgt 180  
catcgacat gcccaaactt taaaaccgat cccatgaaga agcctataga tatgctaattg 240  
ctcaacaaga taaaagaggg gtatagccag ataaggagcg gaagttatga tgctgtttct 300  
gttgttcatt catatgagca tgaaaagtct gttgggcac agaagacaag gctgtcagct 360

ctcagtggtc ctccatggg gcttctttat ccccggttc tcattccaga agagtccct 420  
ccacctcccc gaccttggtt ccacg 445

<210> 11377  
<211> 403  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-009-Q1-E1-F10  
<400> 11377

cccggtcga ccattttcac caatgtgaaa cttccaaaag tagttgctga agctgtcaat 60  
agatactggt ccactctgaa gattatcttt gatcatcggg catgggatac acggaccatg 120  
gagtctctat gccgatcttg caaatttgct gtaaggacat gtgggaggtc catgggaatc 180  
accattggtg caatgctgct agaaatccaa aactatatc agcaacacaa tcagtcttgc 240  
ttcctttact tatccagtga agttattaag atatttggat ctgatccatc ttgtgcgagc 300  
tatcttacat gtctgataca gacactcttt aatcatacaa tacaactgct cagaactatt 360  
caagatttta cagctagacc cgacatagct gatgattgcc ttc 403

<210> 11378  
<211> 398  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-009-Q1-E1-F2  
<400> 11378

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ggaaagcaga ggaagctgga tgctctgac cgtacattcg ggctcggaca tatctcggtc 120  
aactggagcc cgaaacacgg cagtctacac gtcagccgga ccacaagaag caggcgcttg 180  
tcttgctttt ccaaattcca acccgcacg ccaactccct tcctcggtca agaaccgacg 240  
gcgacatggt ggccaccggc gagctgcagc ccctggcgac ccagccggat ttctcagagc 300  
tgcccgagct tctccggcgc aaagtcgagg gagagccgtt gccatcttc atccacgagg 360  
ttaacgcta ccctgcagtt tggcaaatac acgttaat 398

<210> 11379

<211> 393  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-009-Q1-E1-F4

<400> 11379

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 gtgcaggcag caatgctgga gcccgatgtc atcaggtaca gaaagctgga cagtggagta 180  
 aagcttgaag atgtagtcga tggcgaaggg ccggaggctc gggaaggcga ttagtgcaa 240  
 ttcaactacg tgtgccgccg tgcaaatggt tatttcgtgc atagcacggt gaatcagttc 300  
 agcggcgaga gtaagccggt gacacttcga ctcgacgtgc aagaggttcc angacaggat 360  
 ttctcttggc aattgacctt tctgcagatg att 393

<210> 11380  
 <211> 312  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-F5

<400> 11380

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 ctagagccct attctgacat cttgttggag gggaacacga ccatggaggg gttcatcatc 120  
 ctcatggcg ctccctccga gaggcacgaa taattcacca cagaactatg ggtccgtaag 180  
 cagtagctaa atgggtgctg ccctcttttt aatctcagta gaatgtgcaa ctctatgttc 240  
 ttggagatct acttcatgta atgacgtttt gcaatgcgtt ttttgggatt ccagtgaatt 300  
 gtggagttta cg 312

<210> 11381  
 <211> 216  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-F7

<400> 11381

gtaccggacc tacattcccg ggtcgacgag gtgaccgaaa acgacatcag ggatcatgaaa 60  
 gttagtccctt tcgcctactg aagcactggc atcatcaagg ccatacactt agaccgccaat 120  
 caatgaggca aatatggaca cacctacgtc gactgcacat ccatgattct cggaggcggtg 180  
 cgtttgcaact gcactttaac ctaccgaccc gttttc 216

<210> 11382  
 <211> 400  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-009-Q1-E1-F8  
 <400> 11382

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 tgggtgtggag aagctgataa cctcaaagat gatacttgcc gggtcgaacc ggagacttca 120  
 ttctgtgcac cggaactctg gcttggctgt ggctggatta gcagcagacg gtaggcagat 180  
 agtctcaaga gcaaagtcag aagcagccaa ttatgaaaag gtatacggag aacccatgcc 240  
 tgtaaaggaa ttagctgata gcgttgctag ctatgttcat ctgtgtacac tctactgggtg 300  
 gctcaggctt tttggctgtg gagttattct tggaagctat gatagggatg ggccacagct 360  
 ctacatgata caaccttcat gcctctcta taattatttt 400

<210> 11383  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-009-Q1-E1-F9  
 <400> 11383

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 tgagaacagt tattcaagca ctcgatgctt tcccagcttt ggttgatttt gtcatgggga 120  
 tactttccag gcttgtcaat aagcagatct ggaaaatgcc aaagctgtgg gttgggttct 180  
 taaaattggc ataccagact caaccagct ctttcgatgt tttattacag ttacctccac 240  
 cacagcttga agttgcattg aataagtacc cgaatcttcg accacatctt tcttcctttg 300  
 ttaatcgga gaacttgca aacaagttgc ccagacatac tttgaatatt ttgggcttcg 360



ttaacgaacc acagcaggca ccaatgccat ttgcgcccgc tgcattacaa acagcatacg 420  
cgac 424

<210> 11384  
<211> 193  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-G6

<400> 11384

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tttatgacga atgttgagtc catggattat acgcaactct acccttccat cattgctagc 120  
ctcttcggta acgtgcaatg gcctttctca actcgaagat tgggtgcaaac ttccgcggtg 180  
catccaaacc ccg 193

<210> 11385  
<211> 432  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-009-Q1-E1-H4

<400> 11385

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tcgctgggtg tttgttcttt tattttcggc agttagctgc atgctctggt tgacctcatg 120  
cagtctctc acggttctat gggcgcttct cattgctctg cttacaacgg tacttcatgc 180  
cagcttcaga acacctaatt tgaaagcacg tctgaatacg ttcagagagg aattccgagc 240  
agtttggcgg aattatagtg agctctagag ctccctcagt ttcaagggtga taagatgtgc 300  
ttagcgctga agcttccctg ctgtctgtgc attgtgtctg tgggagatgt acaaagggtga 360  
tacgcagttg tgattactgg ctcatcttga ggtggaccag gaccgactct gtangtgatg 420  
ctatgcctcg gt 432

<210> 11386  
<211> 444  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-009-Q1-E1-H9

<400>       11386

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ggaactccac ttccgctgat cttacttggg aagtcgaaga acgcatgct gtcaactttc   180  
ctctttctgg accaaattgt ttgggctggg agaacaggag tatacaagaa caaggagcga   240  
gcagaattcc ttggcaggat tgccttttat tgctttcttg gatctaatac atgtactacc   300  
atcatcgagc tagcggagct tcagcggctt tccaaatcga tgaagaagtt agagaaggac   360  
ctcaagcacc aagagctgta caagaacgag cagtatcgga tgaagctgaa gaagtccaat   420  
gagaggctgg ttgctctcaa caaa   444

<210>       11387

<211>       462

<212>       DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB31-016-Q1-E1-A2

<400>       11387

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ctggtattgt cggcaaatat ggtaccggtt atggtgccag tttgcgtaag cagatcaaga   120  
agatggaggt gtctcagcac tccaagtact tctgtgagtt ctgtgggaag tttgctgtga   180  
agaggaaagc agttggaatt tggggatgca aggactgtgg gaagggtgaag gctggcggtg   240  
cttacactat gaacactgcc agtgcggtca ctgtcaggag cactatccgt cgtttgaggg   300  
agcagactga agcataagtt gctactagtg ttttgccta gtgaatcatc tgggatttcg   360  
cagtttagac gatactttgg attcagttcc attggctgtt tagtcaagga ttatctttgt   420  
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<210>       11388

<211>       419

<212>       DNA

<213>       Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-A3

<400> 11388

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atggcaattt gaccgaggtg tcatccacaa tgggcgtaca aatcactata gctttaagat 180  
gaaagggaag gagtttgtgc tacgacccat gtctccaagc caagtgatcg ccgacaagca 240  
agccacccat cgtggagaga atcgtgagcg agcgaaccac caaaaagaga gtgagtgcc 300  
caagcccaa ttgagtgcct ccatgatgag cgacacgaca aacttagttc tatctgccac 360  
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<210> 11389

<211> 451

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-016-Q1-E1-A4

<400> 11389

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cgttcggcg gcgggagcca tcaggatcag gtagcagcgg aggagctcgg ctcgtcgtat 180  
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gtgttggaat tctgatagac agagtgaatt gtgtagatt taccatttgg ttagatgggt 300  
gaggtggtgt gcacatttgg ttgatttctt catttttgag tgcaacaatg ttgcagaaat 360  
gtagatactc agactctcaa tgccgtgatt atgaggataa ggaatatctt caggtccttt 420  
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<210> 11390

<211> 418

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-016-Q1-E1-A5

<400> 11390

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gctggggacc ggcaagtcgc gagttcttac ctggaaggcg tcattctggc aaaccaagat 120  
aaggacaact tcctcgtgcc ttactttccc gagtaagtcc tcccctcaac cgccccgtaa 180  
catatgaatt cttagatttc gatcgttttt cttttaacat tccgtgtttt ctgcagtgc 240  
acacattgca cgctcatcct cctaagcccc aaatattcca tggccacgta tttcgacccg 300  
gaccgtcagt cgaacgtaga ctacacaaat gtcaagaagg ttcttgatga tgttctccct 360  
ggctacgtca aatctggagg caccttcnac aggcctattc gtaagtacgg taagcacg 418

<210> 11391

<211> 432

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-A7

<400> 11391

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acagttcgtt ttctccaagc ccagacgagc tgataattga cttgtataat aattttgcaa 120  
tagacgggaa gcttgtggta aactatgctt tatcggcagc gtgggggttaa aagattggat 180  
ttgcgggaag aatcgaatgg atcgaaaacg ccgtttgaaa tttgaccgtt ttactgtgta 240  
tagctggagt tgtagttggt cagtcaaaga ggactagct ctacatatg ttgatgatga 300  
aagtaaaggt tcttgcgaga ctgccttttc tggcattgaa ctgtccaagt gttctctctc 360  
tctacagtat gtttattggt tcttgattca tgcgtgtgt gtgattgggc ctagagaaac 420  
ggatggattt tt 432

<210> 11392

<211> 457

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-016-Q1-E1-B2

<400> 11392

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 ccaatgccag cgccacctct tcgaaaccca ccacctcggc caaggctcca gaaccaccaa 180  
 agggttccaa caagtcccg aagaaaaagt cgaggtctta ggcgacaaag ttgttatgtc 240  
 acaaattaac agtatacaaa ggacactgtc catttttagta tcttgacttg atttttttgt 300  
 gttatctgca ttggattgcc ctgcgctgtg cttttagaac catgtttatg gtgacttgag 360  
 attctagact tgttgcaaat tttgttaagg ctgtctgact tatctgggta aaaaaaaaaa 420  
 aaaaaaaaaa aaaaaaaaaa cggccgctct agaggat 457

<210> 11393  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-016-Q1-E1-B3

<400> 11393

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 gaaggcgtag gtgaagctga caccagacta cgatgctctt gatgtggcca acaagatcgg 180  
 catcatataa gtcagaggga gggctctgca gtaggcgctt gtgtcgtggt ttcttgtgtt 240  
 attggaattt ttagttgtt acttagcaaa ggggctcagt ggctccattg cctaccatat 300  
 cgctgcacac tttcatgaat ttgatgcaat cgaagtgact tgttggtgag ctttgcgttt 360  
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 tttcccggtt ttanaga 437

<210> 11394  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-016-Q1-E1-B4

<400> 11394

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catcgaaaga cgggacacct ttgcctctat caagtgggtat cagatttcca ggttgctcgg 120  
tgagatttta cagcttttcg tagtttagat cgagtttttt cttcatacct atagtccacg 180  
aaaaagccaa aaaataaatt agggtagtt gatcctatcc gaaccaatct gagcctttgc 240  
ataatctttt ctgtgtttgc tttgttgaat ttgcggttgc atcgtcgtgt caagttgctg 300  
gtcttagcgt ctagtctttt agagttccga gttctgttca aaggttgctca cgtcgccgct 360  
gccatatatc accaccgcat catcatcatc gctgctgcca tataccacca ccgcaccaac 420  
ttcatcgccg ctgccatata ccaccaccac atattcaccg 460

<210> 11395  
<211> 408  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-016-Q1-E1-B7  
<400> 11395

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tccatgtcat cgtcgtcttc cttgtcgaga gcaacatctc catctagttc atcttgtgtg 120  
tctggaagct cctgtgagct gttgtggctg taccgaccac ggcaaccagt tggccgatgt 180  
gtccgttctg caacaaatgg cgtgaattgc ctgcgaaccg cgtcactgtc atatccatta 240  
agggacgtcc aaccctcaac caacttcccc agcacgctgg tcattctgga tgcaaactgc 300  
ctaattatgt gctcaacggc tgccctcgcc tgtgcacgaa ccaagattca acactctgca 360  
catcgtatta aagtcacgtg cacaggatca acactgacca tacacaac 408

<210> 11396  
<211> 450  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-016-Q1-E1-C3  
<400> 11396

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aatgctgtgg aatgctgtga tttttggccc tgacgatagc ccggtgggacg gaggtacgtt 180  
 taagctgact ctccagttca atgaagaata tcctaataag ccaccaacag ttcggtttat 240  
 ttctcgcatg tttcacccta acatttatgc tgatggaagc atatgcttag atattctaca 300  
 gaatcagtgg agcccaatat atgatgtagc tgctatactt acatctatcc agtcgctgct 360  
 gtgtgatcct aaccggaatt cgcctgctaa ctcagaagct gcncgcatgt tcagtggagaa 420  
 caagcgagag tacaaacgca aagtgcggga 450

<210> 11397  
 <211> 458  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-016-Q1-E1-C4

<400> 11397

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 cagcataaat gctgtgtaat gctgtcagtc gtgcgacagg atagaagccc atgtgaccgt 180  
 ggaagctaca tcataactct ccaattcagt cacctatatc caaatcactg accatcattt 240  
 cagatcatct cgccggtgaa tcacccgaag atatacaccg aaagcaccat acgctaaaac 300  
 cacctatcga cacattgcgt cctaacaaat aagctagcag ctatagctat tcctatcaat 360  
 tcgcagccgt ataatgccat gggacactcc ctgtctcagt caattactcg ccgcatgtgt 420  
 agtgagaaca cgcaacatta cagccacaca ttccagca 458

<210> 11398  
 <211> 443  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-C5

<400> 11398

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accatgcttt cttggcatca gaggccataa tcaagcagat cctcgtctc cttggccctg 180  
gtcttaacaa ggcaggcaag tttcccactc tggtagtca ccaggaatct cttgaagcca 240  
aggtcaacga gacaaaagct acagtcaagt tccagctaaa gaaggttctt tgcattgggtg 300  
ttgctgtggg caacttgctg atggacgaga agcagatcca aaaaacatc caaatgagtg 360  
ttaacttctt tgtgtccctc ctgaagaaga attggcagaa tgtgaggtgc ctgtacgtga 420  
agagcaccat ggggaagcgt gta 443

<210> 11399  
<211> 368  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-C8

<400> 11399

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aactactcct atattatatg cgtgtgctc tagggctctat gcccatgttt ttcttttctt 180  
tttctgattg acctatggcc acgtgtgtct gtcaatttgc actcactgat accacatgag 240  
caagaccatc cgggcagaat ccatctagat atcttctgtt agactagtgc aagctgccac 300  
ttctaatagg atccaacct aacctatgcg ttcaatgcta cgttcaaagc tcttcgatac 360  
tgtcacct 368

<210> 11400  
<211> 445  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-D6

<400> 11400

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gcttggttcc gcacctagtt gatggtggta tatccatttt gcagtatgct gatgacacta 180  
tcatctttat ggagcatgac ttggcgaaag ttatctttac ggccacagca ttgatccgta 240



tgtggtcgct actcacaccg acggaggcca gggggcgttt ggctactgcg tctaccgat 300  
 gggagatggg agctcgggtt attttcaacc ggtttggatg gcggtcatgt aataggatac 360  
 gcatatactg ctcctatttt atttgccagc cggttgtggc tctatgttta ggctcgcttg 420  
 agcaaccttt tttcctttcc aactt 445

<210> 11401  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-D7

<400> 11401

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 tatatgttca tggattttac cctcatgcgg ggggaacagt tgtccgacct gggagatttc 180  
 ctggccacat taatggtgtt taccaactgg gtgattttac ataccttgac ggagacttca 240  
 catctgagtc tggaacgtct ggtggaccag ttaccatggg agatagagtt attggagtaa 300  
 atgtgcaaag tgtgggagga tcgagatgcg cggtttcccc tctgacacta tacatgacat 360  
 ttatgaattg gtgtggtttt aatggcggag accatacaat tgctgcatg atacaacgcc 420  
 ttgtgccta atcagttttg caatgtcaag 450

<210> 11402  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-016-Q1-E1-E1

<400> 11402

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 ttcggcgtag tagcaggcga tggcgatgtg gccggatctg tcattgttag tcgaagattg 180  
 gaaacaaaac acaagaatag tgccctttc aactactaga atgtggttgc taatcaaaag 240  
 caggagaatg tatctctggt tcttaccaat tcttactcaa catgtggtga ccggtaacca 300

atggtgtata ttaccaccaa agattgggta nagtgcctgg aaggtcatgc caaattgcac 360  
 agtgaatccg tggagcttgg taggcataaa tatggtagta atgttagtca taatcaattc 420  
 agagatggaa gttgcacaaa tggacaataa c 451

<210> 11403  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-016-Q1-E1-E3  
 <400> 11403

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 gcgctccacc atttcgccat ggccggcggc ggcattctca gcagggcgct gagctacgtc 180  
 gtcaacgagt tcctcgctga gggcctcgcc aacaaccgtg ccttccatag gtttgctgtg 240  
 aggaccaaca tgactttgga ggatctctct tctaaagcta aacatgctag ggaggagata 300  
 tcggagcaat tcaaggatgc tcgtggaccc aatgatcgct tcaagcagtg atgcccgtc 360  
 cgagtcactt gttcttgccc tggttcggga tgccatccac aagtggccat tgtataaaat 420  
 ccgaatctaa attac 435

<210> 11404  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-016-Q1-E1-E6  
 <400> 11404

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 ctccggagag gctgtcaagt acaagagctc cttggatgct ttccagcaga tcctgaagaa 180  
 ggaggggtgcc aagtccctct tcaagggggc tggtgccaac atcctccgtg ccattgctgg 240  
 tgctggtgtg ctctccggct acgatcagct ccagatcctc ttcttcggca agaagtacgg 300  
 ctcagggcgt gcctagaggg gacgaaatga tgacgaacaa gagaagtttg ttcccagtc 360

tacccttcga ggatctggtg aacttttatac tttttaacgt tggcaggcaa taattattgt 420  
agagggtgga ttttcccaac attcgttttt gg 452

<210> 11405  
<211> 450  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB31-016-Q1-E1-E8

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gccagacagg cagctgcagc ccgttctgca caaaccgaag gtgcctgtag tctctcccct 240  
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<210> 11406  
<211> 336  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB31-016-Q1-E1-F1

<400> 11406  
  
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gaaagtgtat ttggatatta caagtagctg cttgtgacaa tagctaaatg ttgtagggtg 180  
gtctgtcagt agatgagttc ttctatgtac tgtacatctg acatccgtta cttttaacct 240  
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<210> 11407  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
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<400> 11407

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agcactgggt ctctatcaaa cgagcaccct caagaacttc ttcaaagtag tgctcagcag 240
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atgctttaac agggggcaa atgtcatccgtg cgccctctat gcacgccaac ctcttcacg 360
cattaatgcy cgacaccacg tcaaggaact gctgcaccaa gttaaaatag ctattcgggt 420
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<210> 11408  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-F5

<400> 11408

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gaagcataag ttgtactag tgtttgtcc tagtgaatca tctgggattt cgcagtttag 360
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cgatgatggt ctgttatggt attctcccac cct 453

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<210> 11409  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
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<210> 11410  
 <211> 287  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
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<210> 11411  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-016-Q1-E1-G2

<400> 11411

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cggagagaag gattcatccc gttttacgat acggagccgc cgccaagccc taatctctct 180  
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<210> 11412  
<211> 451  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-016-Q1-E1-G3

<400> 11412

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acagtttttt tgtagtttag atcgagtctg ttcttcatac ctacagtcca cgaaaaagcc 180  
acaaaaaaaa aattaggggt agttcatcat atccgaacca atctgagcct ttgcataatc 240  
tttttagggg tttgctttgt tgaatttgcg gttgcatcgt cgtgtctagt tgctgggtctt 300  
agagtctagt ctttttagagt ttcgagttct ggtcataagt tgtcacgcgg cccggcgcaa 360  
catcatcaat caccctgcc tetaacagca ccgctttacc gccaccgctt ccaatcggtg 420  
tcaatatacc accacaactg tcatatacca c 451

<210> 11413  
<211> 463  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-G5

<400> 11413

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tgtcaggaaa gtttccaggc actcaaggac aagatgactt ctgccccagt gcttgcccc 180  
tgattctcgc aaggacttcg tcatctattg cgacgcttca cgacaaggat taggctgtgt 240  
cctaatagcaa gaccgcaggg tgattgctta tgctctccgt caagtgcgtc ctcatagaaga 300  
gaactaccca gttcatgacc tcgagcttgc tgcgggttatc tttgcaactga agctatggcg 360  
ccagtacctt ctcggtaatc gttgtgaggt cctcaccaat catcagagtc tgaagtacct 420  
gtttactcag ccagatctaa acctccgtca gcagcgatgg atg 463

<210> 11414

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-G6

<400> 11414

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gactcatttc ctgcaggagg aaccagtaat tggtgacct catgagattt tcgatagttg 180  
tttagcattg gcgacagcct gacagctaag aagaccaga ttcaaaggag cttatttgat 240  
gcaaagagtc ctgagtttgt ggaaaagggtg atgcgcttat cacaagagca ctagtgtaag 300  
agtttaccga cagaatatga gaagactggg accgtcaaac caattgatgg gtgtatgagt 360  
tttgttgga gtgttaccat gcttctgagg gtggtagcac cccatacctt gtgtggatga 420  
atggattttc aaagagagcc tccaaacct 449

<210> 11415

<211> 393

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-G7

<400> 11415

accggtcaga gaattcgcgg gtcgacgacc tcaacgggac cagcaccact gcaaactcaa 60

tgatgggata tacactccct tatcaggtcc ctcaatttca cccaaattga aataaaaact 120

gcaaactttg caaattcatg ggaaaatggg gtgcaattga tggccaatgg ccttgtacag 180

accgaagatt acagcaccca aaggaaatth atcaatatgt ttctccttgc gccacaggag 240

aagggtact ttgcgcacag agaatatctc cactttgggt accgaaaaaa tgtgcactgt 300

gcacgtgtga gctcacgaga cccttttgac accatgggtat catccacagt ctccacacat 360

gctgggtaca atcatcatga aaatcgtcca atg 393

<210> 11416

<211> 379

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-G8

<400> 11416

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tatatgcata tttgtcaggt gatttcgagt gcaaactatt caataatcta tttgtgttat 120

ccagaggagt aatacttcac acacttttgt gttttgtcta attgcagggt tatgggacat 180

ttgtacaatc cacatatgaa gataaggaag aaagagatgt ttatttgctg tccaaaaagt 240

tctctcacgt cacttttggc ccaagagaag atagagtcca agtctctcac gttctggatt 300

cagattcgga ctgcacagac atacctgact caagacgcac acaagttttt catacggact 360

ccgaattggg tgatacttt 379

<210> 11417

<211> 452

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-016-Q1-E1-H3

<400> 11417

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gctgggtgctt aggtcacatg tggtgggttct tctgagtggg aggaacttca tgaaggagaa 120



ggtgaaaaca agtggtagct ttgtgctcag aagatttggt gcgtttgact ttgcaaagcc 180  
 tggttccggg aaaggatga aaatcgagga cctagatttc accgaggaag aaatggagat 240  
 gtatgtggat ctccatccaa tcacaaacac ttcgccgtac acggtggtcg aaacaatgct 300  
 gcttgcaaag gctgcagtcc tgttcagggc actagggcta agacacctgc tggttgtgcc 360  
 aaagacccca gggagatttc ctattgttgg gattctcacg aggcacgatc tgatgccgga 420  
 gcatatccat gggctgttcn ccaatctccg ca 452

<210> 11418  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-H5

<400> 11418

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 ggaattgtgc ggacgcctg gaagccgagt tggcagcaat ccatgaagga attactctgt 180  
 ctcttaattg gactgaacta gatatccttg tggagactga cagcgctgat gcggtgcaac 240  
 taatttcggc agccggaaaa gaccgttcaa cacacactca caaagtaatg gagatcagat 300  
 caatactgtc tcaagaaaaa aggattcaaa ttatgaaaat caagcggaat gttaatgtac 360  
 ctagtcaaac tctcgctcat atgggacgta cacaacaaca tactgcttgc tggttgcgtt 420  
 ctcccccgga cgagattgag agcattgttg tc 452

<210> 11419  
 <211> 368  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-H6

<400> 11419

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 catcacgaag ctctgtggcg cgcacaccgg gaccacggcc gacatgatcc gcacccagaa 180

atggtacacc atctataaag accacatcac cctcagcgac taccagatca caaagggaag 240  
 gggccccaac tcaactacaa caagcgatcat aacccccgca attgcaggtc cgtcaccaat 300  
 cgtgcctgtg atgagcggtg gttgcattcc agtcccaatg tcatcacagc tcgatgtgtg 360  
 ggctgaac 368

<210> 11420  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-H7

<400> 11420

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 atctactccc gcggggcata ccgcttgac tcccggcgaa tctacaatgt catcgacaac 180  
 gtccaagcca agcccaaaca tgcacagtac ttcaacaacc acatcgacgc cgctcaaggc 240  
 cgacgaggca agacggctag acgggcgtag ctggagcaaa ggccacgttt tcgacggcgc 300  
 gtgtaccact ccgtacacgg actctgccgc cgccacacac acacaccacc accatgcatg 360  
 aggaacgcga agcaaagacc gaagatgacg actacgcagc ttaatcgat gtgtcccgcg 420  
 gtgctatctg cgggagtaat taaccggggg ctt 453

<210> 11421  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-H8

<400> 11421

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 ttcatgttac tttggaacta acagagctgg gcatatccat aattgaccat atgcctgagg 120  
 aagttcttta cctctcagtc cagcaattat tacttgcta ctcatctgga atgggttctg 180  
 gaatcaatag gtttaaagt cgaatgcact ggattcaagt ggacaatcaa ttgccttttg 240  
 tttcaatgcc tgtcctcttt tgtcctcaga agacggacaa tcaatcagac catgtgctca 300

agttctctat gacgatgcag accaataatt ctctagattt ttgtgtttat ccatatattg 360  
 gtgtgcaggt tcttgagaat tgtgtgtttt ttgttaacat ccatgaaccg attatttggc 420  
 gcctccacga gatggttcaa cacct 445

<210> 11422  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-018-Q1-E1-A9  
 <400> 11422

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 atagatttta gcatacagtg cgattagcac ttgacctctt tcagcccatg tgcaaagtac 120  
 aggaaagttg gatcagcagc tccctccttg tagtaggcga acaccacgcc gccatcatca 180  
 tgcattgctct cgccaacaaa gaactgaagg tccttgagct tgctaagaag atactttgtg 240  
 gcggactcaa cattcttctt gaaagcatct aggtcatccc cttcaagctt ggagagagg 300  
 ttcttgatgt agcgcttcat gtgagagata aactgcttct tgtcaaaagc aggttgctcc 360  
 tgaagacgga aggtgtcaac aatgtcaacc accttcacgg cctgggtcatc aacacctca 420  
 tcatcaccac caccctcagc ag 442

<210> 11423  
 <211> 355  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-018-Q1-E1-B12  
 <400> 11423

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 tcactcatgg attactcctt cccgtaggaa atggtaatgt tgtagaggga taaatgggaa 120  
 gagacgatta taaatccagg aagtttagaa tctaattcta actgttggtc cctgagaaat 180  
 gactccattg acgtggcagt ctttttcttt aaataagatg gggttatatga agaaacggta 240  
 ccaaaggagg agaaaactgt attctaagga ggaaaaaatt aataggaatc tttctgagct 300  
 tctgggataa agcttacagg gtttgaagat tagtacattt gtatgtgggg agaaa 355

<210> 11424  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-B9

<400> 11424

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gaagtttggg gaggcacaga aaaaagagct ttctctagaa aatgatctac caggcatgtg 180
ggttcttggt gctaagttga agagaggggc ttccagcata tctgatttaa acgttgatga 240
tcggtctatc aatctagctg agataactaa tgatgcagag gaaaacaaag gtgacacaaa 300
tgtagcctta gttgagaaac aagtgtcaga tgatactgtg aagccattga ctgcagaaga 360
atatagaagt ccagaatttg aacctcttcc tgttcgt 397
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<210> 11425  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-C9

<400> 11425

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tgttaacaag gctgttggtc cggccaagag attctcggca ttaggaattt gcaagtgggt 120
gctctccgta atcttttgga gaagaagctc tactaccagg tatacgtttg gcttgatcaac 180
tacgttcctt ggctcctgc tgctcctcga cagatccacc acgttgagtc catggcggcg 240
tctgcatagg ccacagcaat gaccacagcc tccgccatcc catagccaaa cacatgtaaa 300
tgcagaactt cagacgattg gttaccactc tgttttgcgc gtgcattgca ttctttgatg 360
atctgtttct tttcgttttg gctgagtaca gcgcagtatt ggcgatgtaa gttttggctt 420
tcaagctttg agcttgctgt 440
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<210> 11426  
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<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-018-Q1-E1-D12  
  
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 cagacggttg agttcagata ccgcatcatg atgcagacac tcctactcca ggaaggtcac 180  
 agcttttgta tcatctactc cagcaggaaa gatagtagga tggccgatgt tggatgcatg 240  
 gtccatatcg ttcagtgcga taagctcgtc gatgaccgct tcttcctgac gtgcgtcggc 300  
 ggtgaccggt tccgtgtcct ggaggtcgtc agaacaaagc cctatgtcat cgcaagagtc 360  
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<210> 11427  
 <211> 65  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-018-Q1-E1-E10  
  
 <400> 11427  
  
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 ttgtg 65

<210> 11428  
 <211> 313  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-018-Q1-E1-F12  
  
 <400> 11428  
  
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 tgctcctgac gtggccaaca agatcggcat catataagtc agatggacgg tcctgcaata 180  
 ggcgcttggtg tcgtggttcc ttatgttatt ggagttttgt agctgttact tagcagaggg 240  
 gctcagtggc tccattgcct accatctcac cgcgcacttt catgaatttg ctgcaatoga 300

agtgacttgt gtt

313

<210> 11429  
<211> 437  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-018-Q1-E1-G10  
  
<400> 11429

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tcgttggttag aggaggatga tcaagtttga cgagaggctt cccgtactcg tatctaaaga 180  
tctctacctc taacatttca aactgtacaa gattgctcag gtaatcacca agattggtag 240  
cgggcaatag ccccggttga ttagcgacga taccctagac accttgagcg ggggacacaa 300  
ttgcttcacc tgttcattga gctggggaat tgttttccca tttcttcggt ctgctaattct 360  
tgcatcaatg gaagtacttc ccgactgctt cgcattctca tatgtctttt taatatagcg 420  
ctcatagttg gaattcg 437

<210> 11430  
<211> 430  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-018-Q1-E1-G11  
  
<400> 11430

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gcgaagtgcc acgctggtag atcttattga gcaaggacag taacattggc gccattgaag 240  
aaggctcagt cacctagcgc aagatttcgg ccatatgttt actgctagtt gtccagcaac 300  
gctgttttgc cgctgcggtg aagttttggt tgctcatggt tgtatggact ttctctctc 360  
ttttgtcagt cttgagtatg taatgtggag gttatattgt tacaccggtg gcatcatggt 420  
gcccagcagg 430

<210> 11431  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-H12

<400> 11431

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acacagctag gggggtaaat gtaaaaacac cctggctctt cacattcgct cgacacgtgg  180
taagtgttca ttactgggcg tggaaaccaa tgagtgaac attcacaaga ggccggacac  240
tatttcgaca ggtacacgga atttgagaa ggacccgccc tgcaatgccg aagacaatac  300
ttcgcgctgg actcatcgtc attgaagcct ggttcggggg ctactgagga agtcctggat  360
taaggggtct ccggacaacc ggattatatt cttcggccgg actgttagac tatgaagata  420
c                                                                    421
  
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<210> 11432  
 <211> 463  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-A6

<400> 11432

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ggtggccctt actgggacgt gccactcggc cgcagggact ctctgggtgc aagcatccag  180
ggatcaaaca atgacatccc tgcccccaac aacaccctac ccaccatcat caccaagtgc  240
aatcgctctg gtctcaacat cgtcgatgtc gtcgcctctt caggtggcca caccatcggc  300
ttgtcccgct gcaccagctt ccggcagagg ctgtacaacc agtcggacaa cggcctggcc  360
gacagcacac tggatatgtc ctacgctgcg caactaaggc aagggtgccc ccgctccggt  420
ggcgacaaca atctcttccc actcgacgtc gtcagctcga cca                        463
  
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<210> 11433  
<211> 357  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
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<400> 11433

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agaagaaggc gtacgtgaag ctgacaccag actacgatgc tcttgacgtg gccacaaga 180  
tcggcatcat ataagccaga gggagggtcc tgcagtaggc gcttgtgtcg tggtttctta 240  
tgttattgga attttgtagt tgttactaag caaagggcct tagtggctcc attgcctacc 300  
atatcgctgc acactttcat gaatttgatg cantcgaagt gacttgtgtt tatgcta 357

<210> 11434  
<211> 360  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-A9

<400> 11434

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cacacttcat aggcaacgca attacgtgag gatcgactgc aacatgttca cacccatggt 180  
gctgcacgga ttccacaagc acaaccattg gttttgtcgc agcttgccac ccatttttac 240  
catgctgtgt atgaaacttg gtgatcagtc tctcatggag tgtatgtatg ggctgccctt 300  
ttacaaaata tcatatgcat gtttggttga tgactacctg ggggatocaa gcttaacttg 360

<210> 11435  
<211> 449  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-B10

<400> 11435



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 cagccaccga caaccggagg cggcgccatg tctcagaaca acccctccca gtcctcctcc 180  
 tcagagctga tcgaccggtg catcggatcc aagatttggg tgatcatgaa gggagacaag 240  
 gagctcgtcg gcactctctg cgggttcgac gtctacgtca acatggctct cgaggacgtc 300  
 accgagtatg agtataccgc cgagggcccg cgcattacga aacttgatca gatcctcctc 360  
 aatggcaaca acatagccat cttagtctct ggtgggtcac cgccagatgc tgcgatgagct 420  
 agcaagcact tctggaggat atctgtttg 449

<210> 11436  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-019-Q1-E1-B5  
  
 <400> 11436

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 gtagaaggta gaacgcggtt tgggtgctaga caccgatgac gccttgtgaa atctggtagg 180  
 ggaagccgca ctctttttac gcggtgcatc ctttcatgca ttcataatca catcacatcc 240  
 tgattatcta tgagaaactt ccctatgaga acatgatata ttgaatgatg aatgtcatac 300  
 tgccagacag atgggggtgt atgaacgaac cacggaacga catancggca tgccatcact 360  
 agcgcagact ccattaatac tgactatgcc gatcacacat taatacgtcg gtcatagacg 420  
 tcatagctct tctaa 435

<210> 11437  
 <211> 259  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-019-Q1-E1-B6  
  
 <400> 11437

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 cctcagttgt agtttttttt aaatacatga tacttgact tttatagaca tgtgtaacta 180  
 ccatttttag tacagggtgca actgggttgc gacgtatgta gtttcaagct tgagtatccg 240  
 tcggttgcg cttttgata 259

<210> 11438  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-019-Q1-E1-B7  
 <400> 11438

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 ggtcagtatc atgggacaac tcatggcaac ctggccgtgc tgtaagattg cctgatccaa 180  
 gcaaaatccc tgaattatgc gctcaggatg acatgaagta tgcctttgag ccgcttttca 240  
 ttctggcaga gcctggggct gttgattaca atgatacaat ggaatcttca agatttgag 300  
 ttgatgcaag tagcagcagg gcttacagct caatttcagg tggcactgat agtgagcaa 360  
 gcccgctact tgaagggctc gagaatgaca gtgctccgag tcatcattgc tgttatggct 420  
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<210> 11439  
 <211> 464  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-019-Q1-E1-B8  
 <400> 11439

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 gacctgaagg attggagtat cgacaaaggg ctagctatgg acaggggtgc gtggaagctt 120  
 cctatccatg tgccagagcc atgagttggt tgcgagatct tatgggtttc acctctagcc 180  
 taccccaact tgtttgggac taaaggcttt gttgttggtt ttgttttttc tgggaggact 240  
 gtactaacat attgaaattt tcacagtgtg ggcgttcgga ggctgaggaa ttaacgagag 300

agcccttatt ctgatactga acatacattg gtctccaaac cccagtagaa gacaaatact 360  
cagcatatca gacagggcat actcttacct ttacacactc gaatattgtc accctgtgcc 420  
tctgtacggc ttgtgcatct actgtaatgg cctcataag tatg 464

<210> 11440  
<211> 457  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-C5

<400> 11440

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aaggtgcaga agctcgctct caacatctcc gtcggcgaga gcggcgatcg cctcactcga 120  
gctgccaaagg tggtggagca gctgagcggg cagtcgccag ttttctccaa ggcgaggtac 180  
actgtcaggt ctttcggcat tcgtcgtaat gagaagattg cctgctatgt gacgatcagg 240  
ggtgagaagg caatgcagct tctcgagagt gggctgaagg tgaaggagta cgagctcttg 300  
aggaggaact tcagtgcac tggttgcttt gggtttggtta ttcaggagca cattgatctt 360  
ggcatgaagt atgaccatc aaccggcatc tatggatgg acttcttcgt ggttctggag 420  
cgagctggat accgcgtctc ccgccggcgc cgatgca 457

<210> 11441  
<211> 464  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-C8

<400> 11441

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cctggaacta caggagctgg taattgcgta ggcggggtgg tggctctccg acatgcttgt 180  
tgatgtgtgg tagttattgg tgtgctctcg gccggctcca gacgaataag attcttcggc 240  
catagcagca cccaaccctt gcagcttcca atccgcgacg gggctctcgt gtcgctccc 300  
acatgctgta ctggaggagg caaatcctcg tgccccgatt tcacactggg caagctaacc 360

ctgaagtacc cagcggggat cggtctggtg tggaacgtgc gttgagaggg gtccattatc 420  
atcccccttc ccacgtccac cttctggccc ttgatcaagt agag 464

<210> 11442  
<211> 442  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-019-Q1-E1-C9

<400> 11442

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aagctttggt tttaggatga ttagattgct tgcttactat gtgcagaaca aaaacagaaa 180  
ctttggctgt agcgcgtgat ttacatctt ttcttgaaa gtcaaatggg tctgaaactt 240  
tctgcacatt acttctgtat aaatctttca aattgtcaaa tttatttcat aatgtttgga 300  
gttacagaag ttactaaac ctccagatta ctacagactg tcctgtttta gacagattct 360  
atcttctatg tggtgtttgc ttattttgat gaatctatgg gtagtatcgg ggggtttgaa 420  
ccatggtgaa gttggnatac ag 442

<210> 11443  
<211> 436  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-019-Q1-E1-D10

<400> 11443

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atcatgtgcc atgggatcca ggtggtttta catggcatcg gcttgaggtc aagccgaatt 120  
ttaaggaaag gggaatgtta gcgaccaacc tactcttgct tgggctgggc catgggctgc 180  
gggttttggg ctgcagtgag gcctcgagga aactactaca agtacacacg aaggctctaa 240  
gaagaactcg gctaggaact ggatggcttc ggctctctcc gcattctgtc tttctcttcc 300  
tctcgtgttc ctcttcttcc tgtgttggt aagcttgagg aatccatggc tgtaatctcc 360

attgatgagg aatagagagt gtgttgctaa cattattact anggaaaatg aagcaacggt 420  
gttaaaggat gggctg 436

<210> 11444  
<211> 455  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-019-Q1-E1-D8

<400> 11444

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ctggtctcca gatggttgct tgctccactc cttacaatgc caagggttta atgaaggctg 120  
ccataaggag cgagaaccct gtcgtgctat ttgagcacgt ccttctgtac aacctgaagg 180  
agaaaattcc ggatgaggag tacactctat gcctggagga ggctgagatg gtacggcctg 240  
gtgagcatgt gaccatcctc acatactcgc gtatgaggta ccatgtgatg cangctgcaa 300  
agacgctggt gaacaaaggg tacgatcctg aggtgattga cattangtcg ttgaagccat 360  
tcgatctgca cacaatangc aactccatca agaagacca ccgctgctg attgtggagg 420  
agtgcatgcn cactggcggg attggcgcca atctg 455

<210> 11445  
<211> 450  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-E12

<400> 11445

gggtcgacac gacagaatgg ctcgattggt agtaaccccc gtgccgaaca ttccacatca 60  
taaagttgtg gagcctcgct cccattttca tcacatacca caagcacggg gtaccaacgg 120  
tgtgtccggt gccctgtgaa aacagtcatg gccgccctac ctggcacgac cccgtcccaa 180  
gagagagcac caactctccc ccgtcactag taatgcgggc tccaagctag tatcgggtcta 240  
ggtactcaat aatgcccttt cccatataag ggtagagtgg tcgcgcatgt aaggttgga 300  
taacggtcgc aactccgacc aatccgtttt gaaaacaaca cacacctgcc ttggcacacc 360

acttcgtcat caagtgggtca cccatctcat catctccctc gggcataggt ggcacccgac 420  
 ggggtttttcg aaaagacttt tgaaatcaca 450

<210> 11446  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-019-Q1-E1-E3  
 <400> 11446

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 tggagcatgc tggtagacagag gccgatccaa gtaaagaagc atctatacct cctcaagagg 120  
 aaaccactgc tgtagccttg gttacaggac cggaacaaaa tgaagaagca gatgcaccta 180  
 ctcaagtcga accagttgct atagtgccag attccatgga gcatgctagt accgaagttg 240  
 atcaaagtat agaaacatct gtgcgtctcc cagaaaaaac ttctgttata cctggtagcg 300  
 aaccagaaga gaagaaagta gaggcacctc cccaagagga taatgttgaa gcagttgctg 360  
 cagagccaga acctgctgga tcccaggaaa atgcagaagt ttctaccaag cctagtccta 420  
 tggagatag 429

<210> 11447  
 <211> 472  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-019-Q1-E1-E8  
 <400> 11447

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 gtatcccatg acgcggtcgc cggggttgac ggcggtgtgg aagtagtcgg gccagcgagc 120  
 caggtagctc atgtagaagg acatgttgaa ctgcggcgag cgaatcgacg tatcagaccg 180  
 ggaagaggac ggccggacgg cgctcgtggag aaacagtagc aacaaaggga gcgagagatg 240  
 gatcttttgg ggatggctta cggctctcggg gaggtggtcg aggttgaccg aggcgaagcg 300  
 gagcagatcg tcgcagcaga accggcgaaat ggtcgtcatg gtctccctcc cgtcctcggc 360  
 ttccggcggc ggcggaatct cgtggcgagg cggggcgggg gcggcgctct atccggattt 420

ccgattcggtt tgtgcgggtc gggttggaac caggaagagg cttcctgcga tg 472

<210> 11448  
<211> 421  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-F10

<400> 11448

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ttccaagctg ccgatgaaga ggaatctggt ttgcatgact cagggggcag ctctgatgat 120  
ggaggcggtc aaaaagagca acatgtcaaa gacaaggaac ccatacgcct gaatgggttc 180  
ccaaagatgg gtagaagagg tctttctgat cggctttgct tcagttcttt ccaggagcgg 240  
tcgtgcccaa ccgagaatta tgaaagcgat catcagtcaa aggggttcga cataaagcat 300  
gaagtgaaga tggccaagta caaagcacgg aaaatggcac acctgaagag agctattcat 360  
ccatctctgg acttcgacaa caacaccaat ggagcaagta gaacgaagcc tacactgagc 420  
a 421

<210> 11449  
<211> 443  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-F2

<400> 11449

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gagaggttcg agaaggaagc cgccgagatg aacaagaggt ctttcaagta cgcttgggtg 120  
cttgacaagc tgaaggccga gcgtgagaag ggtatcacca ttgatattgc cctgtggaag 180  
ttcgagacca ccaagtacta ctgcaccgtc attgatgctc ctggtcaccg tgacttcac 240  
aagaacatga ttactggtac ctcccaggct gactgtgctg tgctcatcat tgactccacc 300  
actggtggtt ttgaggctgg tatctccaag gatggccaga cccgtgagca tgccctcctt 360  
gctttcactc ttggagtga gcatgatgc tgctgctgta acaagatgga cgccaccact 420  
cccaagtact caaaggcccg tta 443

<210> 11450  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-019-Q1-E1-F5  
  
 <400> 11450  
  
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 aagactctca ctgggaagga gatcgaaatc gacattgagc ccaccgacac gattgacagg 120  
 atcaaggagc gcgttgagga gaaagaaggc attcctcctg tgcagcaaag gctgatttac 180  
 gctggtaagc agcttgacaga tgacaagact gccaaaggact acaacatcga aggtggctcg 240  
 gtcctccatc ttgtccttgc tctgaggggt ggttactagt taagctgtaa tggaaacact 300  
 tgctcctga gagaagtgc cattggtggc atggaacctg tgttggtgtt gcaaagagat 360  
 aataacaaac tagctttgct tagtgggagg ggctgtcttc catgttatct gcctatatga 420  
 tttgacaaaa ctagtcgcaa ctcc 444

<210> 11451  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-019-Q1-E1-F7  
  
 <400> 11451  
  
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 gtgagtcgaa atttcaggat taaaaacagt tcaaacttgg taatattatc tttgtgaaag 180  
 tgtgacaaat gtgctgatcg tgtgctcctc gagaataata attctaattt ttgtgcatgt 240  
 tgatcccgtg gcactgatag aacgagcgaa tgcattgctt gttttaagta taaatttcta 300  
 ttaaagctaa ttaaatttaa gtaaagtgc cactaactcc tgttattaca gtaccaatac 360  
 agaccgctc gtgaaccgat gtgtggccga ggtgcatct tctagcctcc tctagcctcc 420  
 acgggatact gttcatct 438

<210> 11452



<211> 443  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-019-Q1-E1-G10  
  
 <400> 11452  
  
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 agatcgagtc tgttcttcat acctacagtc cacgaaaaag ccacaaaaaa aattagggtt 180  
 agttcatcat atccgaacca atctgagcct ttgcataatc tttttagggt ttttgctttg 240  
 ttgaatttgc ggttgcatcg tcgtgtcaag ttgctggtct tagagtctag tcttttagag 300  
 tttcgagttc tggtcataag ttgtcacgcc gccgccgcac catcatcatc gccttgccat 360  
 ctaccaccat tgcttatccg ccaccgcttt gaatccgtat ccatatacca ccaccgctgc 420  
 catataccac cgccatatat cca 443

<210> 11453  
 <211> 455  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-019-Q1-E1-G2  
  
 <400> 11453  
  
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 gacaaggccc acaggaacag gcacccggac tatgagttct tcctgtcccg acagcaacgg 120  
 tagacgaccc caagcttttt gcacacacca tgtttcagaa cactgacggg ggccacttcc 180  
 cctgtaacca gaaccatccg gactgagcgg cgccgtccgc ctgtgttacc cctgtatata 240  
 tttgagatag aggtacatgt ggaggtgctg ctcaattgaa agtgaaacca gaccagaaaa 300  
 tgtttagctc actgcttact tactagttgg ggttgatata atangtgcaa ccccttttta 360  
 aatctaatta gcttgctcac ccatgtggtg tgtgtacata tatgcctgta actcaactcg 420  
 gcactgtatc tatctaactc tgtanctgca taata 455

<210> 11454  
 <211> 456

<212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-019-Q1-E1-G7  
  
 <400> 11454  
  
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 ctgccgcaat gcattaggaa aagttcaagt ttcctattag atttagttct attggaaaag 180  
 ggctgccctc accgcgctta tccccatcgc cggaggggccg acgtgcaggg gttggggccac 240  
 agccgacact tccgttcgtg ccctaccact gtcfaatctt ctgcctaac ccccttcctc 300  
 cccgatctgc tactgatgta cccaactac cactggagct tcggggagca ctctctgtc 360  
 caagttgagc attggggcgc gtcgagtag agcactgcac cccgtccaag tcnccatcta 420  
 atgttgaacg ttcaattttg tcatgttgaa taatat 456

<210> 11455  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-019-Q1-E1-H1  
  
 <400> 11455

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 catgtgttgg taggtgtgag atcaacagtg gaagatgcgg gaaagaaact acgcatggga 180  
 ggacactatc tgctgcacg cattaacaat ctgcatgttg caaacgtcca catggttcca 240  
 cgggcgatgg tgtgaaaagc tgtgaagata ctgacgaatg caaagcgaaa tcagcctgtc 300  
 agtgcagtgg ctgcagttgc gatactacat gtggaatcta taaatgcagc tgtggtggta 360  
 acaacatgtt atacatgaga cagcaggaca cgtgcatcat cattcacact gcctcctcag 420  
 tcggctggag cctcatgtgg gttatttt 448

<210> 11456  
 <211> 390  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-019-Q1-E1-H5

<400>       11456

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tgcgccggtc cgggtgggtga ctacagacctg ggatgtgtcc tggatgggac ctacaggtttt   180

aggagtcaag tttggttgca aggtctgtgt ggtatgatgc tcagatatta tcaattggat   240

aacagttacg acagatgtca gccaaactg tgacatgaga catactgttg tattactttg   300

tactgtcgtg tgttcacagt taatcaactg gcagcatgca tcgtccagcc ggcggtcgtc   360

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<210>       11457

<211>       465

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-019-Q1-E1-H7

<400>       11457

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catccattta atggaaggaa taagtacaca ggctgttaat gcgaacacac ccatcttgga   180

tattgagacg ggaaaaccct atgtagagaa tggtcggcaa tgggcagctc gtgacattgg   240

cctgacccat aaaacatgtg catggatgcc acatggattt atgagtgtaa atacggatat   300

tggagctgga cgggccttct taagatctct ttaccgacag tatgcggatt ggggtgttga   360

ttttgtgaag gttgattgta tcttcggtac tgattatagc ccggaagaag taataactgt   420

ttcacagctc ctgcgagagc ttgaccgccc aatagtacta tccat   465

<210>       11458

<211>       440

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-020-Q1-E1-A1

<400> 11458

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gagctaataa agagggggtc taccgcagag gatttgggag cgggccatgc tgaagcagca 120  
caagtgcaag gattaggttt atacaaggct cctcacaacg aggaagaacc aagctctctt 180  
agtcctgacc ctctggaac ggagcctgag cagattgact ttgcacctgc aacgaagcag 240  
gaagattctg aagatgatag gaaggggaaa aggcggcgcg aagagaggag aggggacaga 300  
gaaaaagagc ggaggcgtga aaagcactat gagggaaaag agaggaagcg agacaagtat 360  
gagagtagac acgactcgga ggacaggag aagcgccacc gcaaggataa gcagaagagg 420  
aggcatgatt ctgattaacg 440

<210> 11459

<211> 323

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-A10

<400> 11459

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atgattggga acatcaattt cagccagtt ctgaggaggg caaatatagc tgattcgatg 120  
tttccgatct aggtcatatt acactcgtat tagaggacag taactatgac gtgtgtcatg 180  
tctcagtgcg tatgcacgat gggcatgtgg atctcactgt ctatgggaca tatttgtgct 240  
gatactcgtg agtatcagtt cacagatcat ggttaaataa tttccgaaac acttgctgtg 300  
aaactgggtt caatttcccg ccg 323

<210> 11460

<211> 468

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-A2

<400> 11460

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ccttccccca gctgcgggac caagccggtt atgtgaccag ctgtgtggcc accgtcgttc 120

tatgcttgtg aagagagcaa cccaagtaaa caggcttgta acttaggctc ttgctaattgt 180  
 atatatagtg gttttctttt tctctccata tcaatcattt tatattgcgt acgtgtcatt 240  
 gaagagtgaa atgatgggtg cttctcccg aacttact gtgtgatttg actgctcctt 300  
 tagtggcccc tacacgtact cccctacgt gtatgcaaca gtcacacgta cacatagacg 360  
 aaaaaaacg cacgcgacgc cctaattgat gcatgtccga gcacactagg aacacacacg 420  
 gtcacgtca agtgtcaac ctacacgtgc atgcacacac atactcat 468

<210> 11461  
 <211> 468  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-A3

<400> 11461

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 aaactgaaga tcacgaatgc agaacaagtg aaccatgact cccctactc cttgcaagat 180  
 ggttgcagga agtgtggtgg tcagcccggc ctcggtgctg gaccccaagt gatctccgca 240  
 gccttcaaca gctatgccga tgaagttcag gagggatttc tgtgagctcg acatgtttgg 300  
 cccctgaagc tatccagctc ccccttagcc ccagttttgt taaggatgaa aaagatctat 360  
 aataaactat aattccctta gtttctctc ctcttagttg ctgcttgata gctctatgag 420  
 catctagttg gaaaaattgc agtttatttt tgcaccttta ccttcatt 468

<210> 11462  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-A4

<400> 11462

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 gactgggacg ccgacatgta tgatgatgtg ctcgatgtct gaaggagctg tgactaggac 180

cgggtcgggt tctcacgtgg aaggaaggac gggaacttgg tgctgaaaca atgtggctct 240  
 tacctgtgtt tagattcttg aagctggggt ctcttacgtt tgtaactag tctgctactc 300  
 tcttgctgtg aaactggggt cgctttctct ccgcgactgt aattttatgc cgcacctgtg 360  
 atttggtcat gcaataaaac cctgtaaatt aagtatcaaa aaaaaaacg ggagaaaaaa 420  
 aaaaaagcg gccgctctag aggattcaag cttacg 456

<210> 11463  
 <211> 458  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-020-Q1-E1-A6  
 <400> 11463

ggtcctaaat tcccgggtcg accctgtacg ggttcatgga gcagaaagtg agcagcaacc 60  
 cgagggaggg cttcgtcaac taccgcgacc tggacatcgg gcagaacgtg gttggcgaca 120  
 acggcggtgcc gacgtacgag agcgggagga tttgggggga gaagtacttc atggggaact 180  
 tccaccggct ggcgacggtg aagggccagg tggatcccga cgactacttc aggaacgagc 240  
 agagcatccc accgttccta cccgtctagg ctgcaacgag tgagtgaact tctcgaaaga 300  
 aaaaaaatga agtggtaacg agtgaaggct gaagagtga gagtgcggtat tgacgtgtac 360  
 gccagccaac atgcatgcat ggggtgtcaca ttgtgtttgt cttgaataag gaataaagat 420  
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<210> 11464  
 <211> 393  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-020-Q1-E1-B10  
 <400> 11464

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 gcctcttacc accgtgcgca actcatcact cgtgcaatgc cgagagagcc atatcgtgac 120  
 tgggtgtagt cctcaagggtg ttccatgtgc tccaatgagc aatttgcgac agttagttca 180  
 ccgatgccat gcacgccata cggcgagct aggattccat cgtgatggct gaagacagat 240

gtgacacccc aagctgacct ccggcattgc ttccatcctg gactcagcac tgtctatcgc 300  
 caactctcgc ttctatctca agttctacga ttcataccgc tcagactttg gatgtgatgg 360  
 atccaccttt tatacgcatac atatggcatg gag 393

<210> 11465  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-020-Q1-E1-B4  
 <400> 11465

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 gacaacaggc cgcgctcttt ctcggtgtac actccgagca gaactgcggt cgtgtatgcc 120  
 cttacagagt aagaaccagc agctgcttgt tacaaggcaa agagagaact ccagagagct 180  
 cgtggatcgt gagcgaagcg acgggcaacg gcgcgaggct gctctaagcg ccatgactgg 240  
 gaggggatcg tgcctcttcc ccagatgccca ggaggagcag atggataggt agcttggttg 300  
 tgagcgctcg aaagaaaatg gacgggcctg ggtgtttgtc gtgctgcact accctcctca 360  
 tatcttgac atttccggtt gtttttgtac atataactaa taattgcccg tgcgctcaac 420  
 atgaacatat aaatattcta ataatagggt atccct 456

<210> 11466  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-020-Q1-E1-B7  
 <400> 11466

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 tacttagatc aggtccatga ccctacccta ggtacgtgac cccatcacct ctcaaaaag 120  
 gaaaaaaaca aaaaaacgca tttttttcgt ttctgagagg caccgacctg actctcgcga 180  
 aaaggaaaaa acagaaaacc cattttttcc gtttccgaga ggcacgaccg tgactctcgc 240  
 gaaacaaaaa ccgtgcctct tgcagaagta aaaccgtgac tctcgcgaaa agaaaaaaat 300  
 aaaacgcatt tttcacgcat ttttttacca accatcaaaa aaatcgaaaa aaaaccgttt 360

aaaaagtcaa aaacgcgtgt gaaaaaataa aataaaaaaca aaatctggag ggagcgtcca 420  
gagcgtgaca cgtggcgaat agctaagagc gcgccaagtg 460

<210> 11467  
<211> 476  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-C1

<400> 11467

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tacttgagat catgacagaa ttactccgg agcaacaaca tgcattctgc cagtttgtga 180  
ctggtgctcc tcggcttcca cctggtgggt tagcctccct aaatcctaag ctgactatcg 240  
ttaggaagca ctctcgact gcggcgaata cttcaaatgc agctggagca gcagagtctg 300  
cagatgatga tctgcctagt gtcagtact gtgccaacta tcttaaactt ccgccatact 360  
cgacaaagga ggttatgcac aagaagctgc tttatgctat caacgaaggc caggggtcgt 420  
ttgatctttc atagtgggtt caaaactaac atacagatgg ttggtgcaca atgtaa 476

<210> 11468  
<211> 384  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-C11

<400> 11468

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gagctggagt cgggtccggt gcacgtgtac agcttctcgg ggggtgttct catctgcggc 180  
gtggcggtgcc tcgtcgcgct cggcatacac accgggatcc tctttcacia gtactgcgag 240  
caacggcggc agatgtccgc cgacggcagc tcccgtcta gccgcagcag tttccgagcg 300  
ttctgtcgg ttgccgaccg aacggagatt gggaccaca tatcctgcat cgacaaggca 360  
cgaggagatc actccattag cgcg 384



<210> 11469  
 <211> 476  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-020-Q1-E1-C2  
  
 <400> 11469  
  
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 gtcgatcgac tcaatttggg agggacaagt tttttttagg gaaatttggg aaagactagc 180  
 aaaaaggccc gtgcgttgca acgggagaaa ataaatgaca cccaatcca atatgcatag 240  
 cgatgggaat gtgtgtcgag gaataacatg aaggagaatt gtgatttcag ctagccaacc 300  
 ttgcaaaac ggcttagaaa tgaatgcatt cttcaatttg tggattaagt taaagatata 360  
 agcatctcct ataagattta aaaaaaatc aagcataaga ataaaaatac atatagaaca 420  
 ttaaaaaata aaatcaaaac tgaaacataa tttcttctgc caaaggaaga tgacat 476

<210> 11470  
 <211> 473  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-020-Q1-E1-C3  
  
 <400> 11470  
  
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 aaacggctct aggggtggaca acaccatcgt agaggcgagt gggcgtgtcg gtgttggtca 120  
 caaacgtctg ccgatgcctc tgtggtggcc gaagggcgta caacagcggc ggcagaggtg 180  
 aaggctgcag atgaaaagta tgggaaaaaa gggctaagtg gaaggaaatg ggaccgtgag 240  
 gggggattgg gtgggccggg gtgtcgaagt cttacgtgtc tgctgtccga actcccgcaa 300  
 agtccccctc actttgtctt caatttgcgg gagatagtgc gtaccgcccg acgaagcgat 360  
 ataggcccg gttggataac ttccgcggcc tttacagtgc ggccaggacg gcttgaaggt 420  
 cggcgtagga gatttcgttc gaacttactc cctccgtccc ataataaag tgg 473

<210> 11471

<211> 477  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-C4

<400> 11471

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tttggtcgtc gctgtcgtgg agatggggac agaaagtgga agagggtggag cgcaagtttg 180  
tttcgattgg gtttgtgcat attctcatcg gtgcttggag tggagctacg gcgcccactg 240  
gagctgccgg tctccgaacg ctccccgggtg acctttctgg ccgaagggcg gcctggtgaa 300  
gccgcttcgt ttcttcctcc tggcttgatg ccatttgaga ggcagctggt caacttcaac 360  
atggagtcct cttcttccat ctttgtccgg agatggagta gtggcgggtcc tgtgatccca 420  
agtggtcacg tccccgggtga tggccggact ggatctacgc tgggagtgag tattgga 477

<210> 11472  
<211> 469  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-C6

<400> 11472

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ggccatggcg tcatagccgc cggccgccgg gaagccggcc atggcgtgtg gagaggagag 180  
gaggtgggag gaggccgtgg tggaggggat ctggatcggg gcctcgggtg attttttttg 240  
agataaacgg gggtggggtg acaatggagt gggacattga tggcatggga gtatactagt 300  
agcgcggctg cctctcctgc gctacagcta tccacatagt agtagcggg gtttcccggg 360  
ctactactat ggtctgttcg cgggtcatgg ttggagatat ttactagtag aatgtttttt 420  
gtaccacacg ctaccagtaa atattactag tagcgggtgt caacatagc 469

<210> 11473  
<211> 452  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-020-Q1-E1-C7

<400>       11473

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gtgggtgtgat gccgtcccca agatgagtcg ctgtgacgcc ggcggcaaga catacatgac  120
caggtgcggt gccggtgcaa gtggagatcc atgccgcggt gacaggcgct gtgacggcgt  180
catccacagc gagatgccct gtgtggtcct ggtgctgcga aggcaaagtt catggcaaga  240
ggtttgcagg tgatctgcat caagattaga ggagttgaca tgacaagatt agggaggtga  300
atgttaggat taatcttgtc tagccgagct gagagagtca gttagtttgt tagctgctgtg  360
agggtcgtgt gcctagagtg attctaggag gaagaagtgg tcaagataag attagatggg  420
tgcattgtgaa gtggcgtgag tgggtcagtt tg                                     452
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<210>       11474

<211>       472

<212>       DNA

<213>       Triticum aestivum

<223>       unsure at all n locations

<223>       Clone ID: LIB31-020-Q1-E1-C8

<400>       11474

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tagatctgtc tgactacacc atcatgcact gcctcttgct tcgccgccct tgetgtattg  180
taggaccata gtgcaccacc cgcgcgtccg agcggagaac cacctaacgg atatggagat  240
ggttgccgcc ggtgaacctc agatcacggg atcgtagctc cgacataacc tgatctttga  300
caagtatgtc gtcggagtca caacacgcac cagggaggta ctccagggca aactactac  360
acgtgtgcac catatcgagt cncctccctc ttccagcgca cgggaatccc atcgtgtgag  420
cgcggcggac gaccttcgcg tccgtctcgt cggcacgcga gcatcccgt ga          472
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<210>       11475

<211>       471

<212>       DNA

<213>       Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-C9

<400> 11475

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agtttcccct agattagatt tattttctta cctattgtcc aagaaaaagc cacaaaaaag 180  
ttagatctat tcatcctttt gtccaagcca gtctgagcct ttgcaatttt ctattcattg 240  
tttgattat tgaattatcg gttgcatcgt cgtgtcagagtg tgcgtggtctt aggggtctagt 300  
tcgttttagag tttcgagttc tgttcacatt agtcacgtcg ccgctgcacg gttatccctt 360  
ctgctgtcca ccacaccatc catcaaattc caccatgtgc taccatagtg tcattggcac 420  
aatcataggt gaggtcgttc acatcttcgc ctgattcaat ctgcatttta t 471

<210> 11476

<211> 464

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-D1

<400> 11476

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ttggccggca tgaatgcagc tcggggccaaa atgaatgcat gacaaccgat tcgtgcagga 120  
gagggcgagg gcccggtgaga agttttcggg ttgctcttgg gtgtccaatg cttatgtggt 180  
agtgggtctag acgcccgaag gccccttga tttgcgttcg gtttatggaa aaacggacaa 240  
ccggaccgct cgggtccacga ttgcggacga ttaagggtt caggttgaag atgccctaag 300  
catcgatcta ttagttgtac tcatgaacct ttgttcaaaa catacatatg agaaggactt 360  
gcaaagaaaa aacataaaac ggtcaattgg acaatgaaca tcgcttttta aggccgtcta 420  
caacgctggc cacttgacca gccgcttatg gagagaaatt caat 464

<210> 11477

<211> 470

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-020-Q1-E1-D3

<400> 11477

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gttgaggttg tgtacaacct catcatgaat gagcttttca cagctgttcg tggaaaaggt 180  
gctttttctca atggtttctcc aattaaaaca tcgcctcaaa atgagttggg gaaggctctt 240  
atggtgacag aggtagggac caaaagagac aagtccactt tggatgatac aaccaacaga 300  
attaataagt tactattcaa gattagatct atacgtatgt gtggctcttt ggctctaaac 360  
atgtgtggag ttgcttgttg taggctagat ttgtgttatg agatcggttt tgggtggcccc 420  
tgggatgttg ctgctggagc tttgattcta aaggaagctg ggggttttgt 470

<210> 11478

<211> 471

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-D4

<400> 11478

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acgaaaaagc caaaaaaaaa ttaggggttag ttcattccat ccgaaccaat ctgagccttg 240  
cataatcttt tctgtatttg cttcggtgaa tttgcggttg catcgctgtg ttcagttgct 300  
ggctcttagcg tctagtcttt tagagtttcg agttctgttc acaagttgtc acgccatcgc 360  
cgcaccatca tcatcgcccc tgccatctac caccaccaat ccgagttcct tgcttattag 420  
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<210> 11479

<211> 451

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-D6

<400> 11479

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gacaaaagaa aacaaaaatt taaaaacaaa gcataaagtt taaaaaagtt cattgatttt 180

gaaaggaaaag ttcacaattg ttttgTTaaa tgTTactaaa aacaaaacaa tcatcattcc 240

tagaaaaata tgaaaaaaa tcatggattt ggaaaaagtt catcgatgTT gataaaaaaa 300

tttacgaatt tgaaaaaggt tccccggatt ttaaagaaaa accacaaatt tgaaaaaggt 360

tcaccgattt tgatacaaaa gttcataaat tTTaaatagt ttgtagagtt gaaaaaatgg 420

ttcacggatt ttcaacaaag attatgaatt c 451

<210> 11480

<211> 456

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-D8

<400> 11480

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TTTTaccgt gcagtggcat gctTTtagccc ttggTTTTgtt tgcatcgata atagcaccat 180

ttggaggatt tttcgcaagt ggctTcaaga gggctTTTTaa aataaaggat tttggcgaca 240

gtatacctgg acatggTgga attactgacc gaatggattg tcaaatggTc atggcagtct 300

ttgcatacat atatcaccaa tctTTtatct cGccccacaa tttctctgTT gacacaatct 360

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gagagatctt ccgtgaaagg cagTTtatgc aaagct 456

<210> 11481

<211> 456

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-E1

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 tgccgggtcg aaccggagac ttcatctgtg gcaccggaac tctggcttgg ctgtggctgg 180  
 attagcagca gacggtaggc agatagtctc aagagcaaag tcagaagcag ccaattatga 240  
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<210> 11482  
 <211> 462  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-E3

<400> 11482

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 tttaaaggc cagccggcgt cgaggtagcc caaagatctt ggaaccgagc agggaggaca 180  
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 aggttgtccc tgggtgttag ccgacctcta aacaagagcc aagcaaagat cttcagcttg 360  
 tttggacagc ggctgcgcca aataagatcc gcatggtcac actcatcttc ctcatgcata 420  
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<210> 11483  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-020-Q1-E1-E6

<400> 11483

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gaaatagatg aactcccatg tttcacatag attattttga gagtcattaa tagcatggta 180  
attcgcttaa tgttaataata cttggtattc aaggatatgtg aaactttctt ttgagtgcgt 240  
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agagtcatgc tagttgagta gttgtgaatt taaagaatac ttgtgttgaa gtttgtgatt 360  
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tgattgtctt ccttatgagt ggtgggt 446

<210> 11484  
<211> 461  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-020-Q1-E1-E8  
<400> 11484

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gtgtatatta gggcagcagt agtttttaggt tgtcttggtt tcatgccgtg gtctggcggt 180  
atgccgtggg gatgcaaacc actggagctc tcgagcggcg tctgggtggtg gcctccgtcg 240  
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ttggataagc tcgttctggt gttgtggtgt tcctgatct ggagggcatc caactgctac 360  
tgcttgtttt ctgaggctac catggtggtg gatgagaagc aagatagttg cagaatctg 420  
aagtttatag gtcgagttcg agcatatcag cagacgtccc t 461

<210> 11485  
<211> 474  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-020-Q1-E1-F1  
<400> 11485

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 gcaacaagat ggcaatgcat aattcacata tatggtaatt agacactaaa catgtggcat 240  
 tcacacaaag catgtctaaa ctaatcaaat ggcatagcaa tgcgagacac catacgcgcg 300  
 atatgagcaa cataaccctg ccaagttaga gcatacacct aggggggggaa tangactagt 360  
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<210> 11486  
 <211> 476  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-020-Q1-E1-F2  
 <400> 11486

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 atcatctcct ccattgagca gaaggaggag agccgtggca atgaggaccg ggctcacgctc 180  
 atcaaggaat accgtggcaa gatcgaaact gagctcagca agatctgtga tggcatcctc 240  
 aagctgctcg aaaccacact tgtcccgtcc tccactgccc ctgagtccaa ggtcttctat 300  
 ctttaagatga agggtgacta ctacaggtat cttgcggaat tcaagagtgg gcctgagagg 360  
 aaggatgctg ctgagaatac catgggtggca tacaaggctg ctcaggatat tgctttggct 420  
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<210> 11487  
 <211> 479  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-020-Q1-E1-F3  
 <400> 11487

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ttacatatct gatatagata gcaaatagga ggcattcaca caaagcatgt ctaatctaag 180  
cagatggcat gtcaatgcaa gacaccatat gcatgatatg agcaaaataa cctggccaag 240  
ttagatcatg caccttgggg ggatatgact ggtcatctgt ctctgaatcc tcccctgagg 300  
agctatcttt aaccaacaag aaatctgcat cgacaggtgc actgactgct cagaagacct 360  
tgttttcact ccagattttc ccatgatcga ctcaaattggc tgatgcaaag gaagagtaga 420  
tgaatgtata aacattgttg acaaattggaa tacattatta aaaaaaatg gcacgatac 479

<210> 11488  
<211> 386  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-F4

<400> 11488

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aatggtggcc agtctgatgt cagagatcat actggtaaca accaggtaat gaaaccttgg 180  
aaaccagtg gaattaacaa gtcaattact acatagatgg ggctgatgag gtcagcttct 240  
tgaatataac tggtttccgt gcctttccat tgggtgatat gccaatgcta catgtgctac 300  
gttacgcac tcagaaagtt tttgtgccac ttacagttgg tggccgtaac atacacttca 360  
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<210> 11489  
<211> 459  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-F5

<400> 11489

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gaatatttag caaaaagcaa tgctaattag ttatttcaga tgtgcgattg ttgctgaaca 180  
ttaagacaaa agaagtagaa taactaacca atcattaaag ttaaagtgga atatttagca 240

aagtagtgaa cccgttgcg ccaatgacgc atagacccgc taaatccaag tccgaactaa 300  
aaagaaaacc catgatttag ttagtttaat tatgggcaag cacatatagt aacaaactga 360  
acactcttta taataataat aataaagaac gcttgcttgt tctgtacaat acgatgtaca 420  
cacacattta aatttggcaa cacaaagttt caatgaaaa 459

<210> 11490  
<211> 456  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-020-Q1-E1-F6

<400> 11490

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aattcacata tatgatgcct ggctacatgg cggatgcataa ttacatata tgataactag 120  
ctgaaaaaca tggcattgca taattcacat atctgatata gaaagcaaac aggaggcatt 180  
cacacaaagc atgtctaate taagcagatg gcatggcaat gcaagacaca atatgcatga 240  
tatgagcaat ataaccctgc caagtttagag catgcacctc gggggggggg gggtagcact 300  
ggatcatctgt ctctgaatcc tctctgggg agctatttgt aaccagtaag aaatctgcat 360  
cgacaggtag caccgactgc tcagaagacc ttgttttcac tccagatttt cccatgactg 420  
acttaatggc tgatgcacag gaagagtana tgaatg 456

<210> 11491  
<211> 469  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-F7

<400> 11491

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caagcagcaa ggaagtaate cacggcatgg aggaaattct caagtgttgc ggatgcgggtg 180  
aacaagttcg catattaacc attgagattc tcacgcagct acccgtgggc ttgggtgagg 240  
agtttccgtg tgggaacaag gaaagcagag aaaattttat caagatgctt ccttctatct 300

tcaactgatga ggccaaagag caccatca gaaaattggc tggatgaagca ctgctgaagc 360  
 taagtcaaag cgaaaccaat gctgccatca tcttgaaggc aaatgatcat cttgtccgtg 420  
 atctccgtaa aatcctacta gatgctgcgg ccaagggcac aaatcgaat 469

<210> 11492  
 <211> 449  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-G12

<400> 11492

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 tttgtgctag ccactttatg gcaacttggt taacttatgt ctgtactcag atattgttgc 180  
 ttctgctgac tegtctatga tcgagcactt gtattcgagc cctcgaggcc cctggcttgt 240  
 attatgatgc ttgtatgact tattttatct gtagagttgt gttgtgatat cttcccgtga 300  
 gtccctgatc ttgatcgtag acatttgcgt gcatgattag tgtacgattg aatcgggggc 360  
 gtcacaaatt tggtgcttga taattgtttt gagatataaa ggtaataatg ttaggggtcat 420  
 gccagtgggt aattatgaaa ttgagaaat 449

<210> 11493  
 <211> 461  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-G2

<400> 11493

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 attgtcacat tatatttctt cttctatctt agctatgaag taatgaacac atgtgtgttg 180  
 tgccatgcct acaagaaaat agtttcagtt aatttctccc gtttgttcct gtgcctttat 240  
 ggccagcagg ctaaactctt ttgactgata agctcttcac tgctaggtac agagtttata 300  
 gttaactgaa atcgatagc aaagaacgca gggtcagttt tgacttatgc tatggtttgc 360

tgcagtgtgg tatccgagcc agcgtcaggt gcgccaagct cgccgtccac acgcctcctc 420  
 ttcattctgca tccgcagtgc caaatccctc cccatccgag c 461

<210> 11494  
 <211> 473  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-G3

<400> 11494

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 tcgactagag ggggggtgaat aggcgatttt catgaattct tctaagga atttgctggt 180  
 gaggaattc ctacgtgaag aactactctc aacggaataa gtactcaca gtaaacataa 240  
 cagaacataa gcatagtcatt catgatgaaa tgaagacaag cacagagtac agaaaacata 300  
 aacacaggat aacacaagaa agaagatgga caggttgaag aaattgaact ggggaaattg 360  
 agaaagtctt cagtcaaagt cttcaaacgg atatgaacag gcacacaaca acagacatga 420  
 ggaaatgaaa gagttgagga aatagaacta gtaagctcgg tgaagacaat gat 473

<210> 11495  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-G8

<400> 11495

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 gcatgaagca ggagccaacg tccccctccc cgcgcaataa tgaggatggt gctttgattt 120  
 ctctatgacc ggtggtcatt ttgttttggt tgatcacaca tttgtaaggc taaacttggt 180  
 acctcatatg ttgcgcatga ttttgaacgt gatgaactag tatgatgatg aactagtgat 240  
 gtatatataa atttcatgta ttcattatgca agcacttggt aatatatgtc ctatgaatat 300  
 atattttttt gcgaaattgc gagccccctgg cacggaacag atttcgtaaa cccgtcccgc 360  
 aagacgcgtt tataccagat ctgctagaga tgctctgcct ccaaaccgga caagtaggaa 420

tttttgtgat taaggattga atggc

445

<210> 11496  
<211> 418  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-G9

<400> 11496

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ggctgcagct cccacaactc gcgtttctgt tttggcggcg tgcgctcgcg tgtggatgga 120  
gctcgtagcg caggaagaac tggcgtctcg atggagctcg tatgccagga agaactggcg 180  
ttcgttcgac ctcgtcctcg ttcgtgggtt gcggagctgt ttttttattg actgggggct 240  
caggagatga cgcagaaaca gccatcgagc gaggcgatca gcagaggctg cagctccac 300  
agctcgcggt tctgttttgg cggcgtgcgc tcgctgtgtg atggagctcg tacgccagga 360  
agaactggcg tctcgatgga actcgtagcg caggaaaggc tggcgtttgt ttggacct 418

<210> 11497  
<211> 449  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-H1

<400> 11497

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cgctcgtcc gacggcgctg ccggccggcg atggatatgg agaggagctc gggctctcct 120  
tgtgtatatt agggcagcag tagttttagt ttgtcttggc ttcattgccgt ggtctggcgt 180  
tatgccgtgg ggatgcaaac cactggagct ctcgagcggc gtctggtggt ggcctccgctc 240  
gttttctttc ttgccaccat ggtggtggaa agtggaagac gccggatctg gcaagatccc 300  
cttgaataag ctcgttctgg tgttgtggtg ttccctgata tggagggcat ccaactgcta 360  
ctgcttggtt tctcaagcta ccatggtggt ggatgagaag cgggatagtt gcagaatcct 420  
gaagtttata ggtcgagttc gagcatatc 449

<210> 11498  
 <211> 465  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-H3

<400> 11498

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caccagttac ctgcagcact gaaaaagctt cctttcgata aacatctttc attgcaaaat  120
gttcgaaaag tcattttctga ggctgatggg taccagcccc atttgattgc tcctgagcaa  180
ggttacagaa ggcttataga tagttcactc agctacttta ggggccagc tgaagcttca  240
gttgatgcgg tccatttggt attgaaggag ctagtccgga gatcgattgc agcaacagag  300
gaattaaagc gtttcccaac gcttcaatca gatatagctg cagcagcaaa tgaaagccta  360
gaaagattcc gtgaggatgg acgaaagaca gttattcgtc tagttgacat ggaggccagt  420
tacctaacag tagaattctt caagaaactt cctactgagc cagac                    465
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<210> 11499  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-H6

<400> 11499

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tacaactcgg tgggtggctga ccgaagagag aagagacca gcggacatcg catacttgag  120
ttttctgcct acaacatggc ccaaagtcga gaatgcccc aaagactttc tatgtcgttt  180
tttagcaaga caccttttta cttcgcataa gtcattacta cgtgtatatg tagtgaatca  240
cttcacatt ttgaattttt ttataagatc aacctgcccg ccgttattac tcaaaagggtg  300
tgtggaggta ctcttacaac gcagatcata agatacaaca tgggccgaga ataagcctaa  360
cacctcgttg aggccaacc gacgatgggt gaacttact acaacacacc aatgatggcg  420
acggtgga aaacattgccg cacggtagct ct                                452
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<210> 11500  
 <211> 471

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-020-Q1-E1-H7  
  
 <400> 11500  
  
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 ggatcagcag aaaccacaca agcttgctcc tgcttgggaa ggccccttca tcatcaccag 180  
 agtgctccac aacggagcat accacctttt acaacgtcga gcacaagaaa gatgagccac 240  
 gcgcttggaa tgcggagctg ctccgcccct tttaacttta agttttcagg ctgttgagat 300  
 gtaataagaa ataccttcta gtttgattat taaagacaca gttttttgtt gcaatctcat 360  
 aaatgattgt tgttcctttt ttagtctcta aatccccag tgggtggctt agccgcgaaa 420  
 ccgtttcgcc taagttcgaa aaatcctacc gagtggtgag caggcctctc a 471

<210> 11501  
 <211> 462  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-020-Q1-E1-H8  
  
 <400> 11501  
  
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 acctgctctc tgttgcatac aagaatgtga ttggagcccc cctgcctca tggcgcatca 120  
 tctctccat tgagcagaag gaggagagcc gtggcaacga ggaccgggtc acgctcatca 180  
 aggagtaccg tggcaagatc gagactgagc ttagcaagat ctgtgatggc atcctcaagc 240  
 tgctcgaaac ccaccttgtc ccgtcttcca ctgcccctga gtccaaggtc ttctatctta 300  
 agatgaaggg tgactactac agatatcttg ccgaattcaa gagtgggcct gagaggaagg 360  
 atgctgctga gaataccatg gtggcataca aggctgctca ggatattgct ttggctgagc 420  
 tggctccaac tcatccgatt aggcttgggc tggcactgaa ct 462

<210> 11502  
 <211> 380  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB31-021-Q1-E2-A11

<400> 11502

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taaagaagca tctatacctc ctcaagagga aaccactgct gtagccttgg ttacaggacc 120  
ggaacaaaat gaagaagcag atgcacctac tcaagtcaaa ccagttgctg ttatacctgg 180  
tacgggacca gaagagaaga aagtagaggc atccacccaa gaggataatg ctgaagcagt 240  
tgccgcagag ccagaatctg ctagagccca ggaaaatgcg gaagcttcta ctcagcctag 300  
tcctatggag atagagtcag ttcaagaaac agctatgctg ggagaagctg aaaccaggca 360  
gcaactgcca cttccgtctg 380

<210> 11503

<211> 354

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-021-Q1-E2-A3

<400> 11503

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gttgtgcttc catctgcatg ggcgttcgct gttcgattcg tegtgtgtgt gtgtgtctaa 120  
tttattagag cctatagagt agttcatctc atcgtgtttg ggtcggttct gtaacttgtg 180  
tgggggttgg ttacctacc tccaacacca tttgtgaagg agccggatcc cctgacgtac 240  
gggcacctga cattggacca ctgacgcgtg ggtctggatc cacacgtcag cgagtgcgcc 300  
gtacgtcaga ggagctgcgt ccatttgtga agctcactct tgcanggaat aaaa 354

<210> 11504

<211> 383

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-021-Q1-E2-A4

<400> 11504

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gttcattcca gtgtcacctg tgaaccctcc agagacgcga gatgttcccc gccattggaa 120  
 caatccgtag acagtgcacc tgcccgcacat ccatccgtga ccaggaacct cctggtgcag 180  
 cattccccggg gccatggagg catcacgatg ggctggcaat ngacatgtct ccatttagcg 240  
 gtccaaggac ctggtcattg tcaacgacac accgtgtgca ttgtgcaccc tatgcttggg 300  
 tccatactga ccggatgaca taactctcat gatcaccact cgtagtagtg gcctgatcat 360  
 catgatcctg aatcgtagag cag 383

<210> 11505  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-A6

<400> 11505

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 tgaagcaatc aaggacggat cgcactagat tctgcatgtc gggtagtaac tgtcaccata 180  
 aggaaaaaca gatctgcgat cgtaggcgaa cactgatcag gaccatagga ggtctacaaa 240  
 tacgggaggg cacgtgttca aattggttag catcgaagga gtaaagtgca agcgtcaata 300  
 ccaatcatcg gatgctacat cgctgaccat gtcaatggaa tgacagtcgg acgaccggta 360  
 ctatacgaga agatcagaca ggcaagaaaa tcgatcaatg ccat 404

<210> 11506  
 <211> 383  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-A9

<400> 11506

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 tggcaatttg ggcggttaact ctgcgccgaa ttcttgccgg tcgtgcacgt cttgtgtcca 180  
 agacaagtgc gttggctcag taaatcgat agttgttagc gcatgtataa tcatgtttct 240

ataaatgttt cagtaggggt ctcgttcact ctaatgttgt aaaactcaga catactttga 300  
gtttataaga catctaattgt ttgtatatat aaaaggcctg atgggaatgg ggaaaaacct 360  
ggcgatctag aggatcaaag cct 383

<210> 11507  
<211> 445  
<212> DNA  
<213> Triticum aestivum  
  
<223> unsure at all n locations  
<223> Clone ID: LIB31-021-Q1-E2-B10  
  
<400> 11507

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tgattttaac tggactattg naatgcagcc agcgaagatg gaaatagaca ccgctgtcat 180  
ggatgttgat caccacatcg tcatgctagg tgacaaaagtc gacgaattat gcgaccaact 240  
gatgtaccag atcaacgacg tcattgggat cgatagctgc tctgaccctg atcaaagatc 300  
tcgtaagctg aggcgccaat cacattggag tgtcaatcac acctgttgca gctgtagctg 360  
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atatgtaagc acttttttca gacag 445

<210> 11508  
<211> 441  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-021-Q1-E2-B12  
  
<400> 11508

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agatcgagct cgctaaacca actgtgaacc aaggatga acacgaagag cttcatcact 180  
ccggtgaacg agctgaatcc aacaatcctg cgactaccaa ttctactgac gcaccgactg 240  
agtacgcgaa agatcatcac catcagcaac atcaccacac aagctcggag tcgtcgcaga 300

cgctgatca catcagcatc tgattatcaa gatccatctg ttgcgataac atgcagactt 360  
catctatcgt gcaagcctaa gcctgactct agggtagctt gaggatgata catgtatggg 420  
tacagtacat atccaaactg c 441

<210> 11509  
<211> 431  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-B2

<400> 11509

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cgacattact gttctcacag atccggtgat ggtcaaaaca aatgggttgt ttttcatcac 180  
catgaattaa tctctgtgag ttgtattgaa gcggtataaa ctaatatgga tcggagggag 240  
taacaatttt agatgagtat atactatatg atttttggta gcaacgaata cattcaatca 300  
gtttggctag cggaacagcg taatagatta tgtctacggg tcatctaata ttgcacgctg 360  
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<210> 11510  
<211> 400  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-021-Q1-E2-C4

<400> 11510

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ttgagctgat cttgtcagag aaggaagagc ctgtgaagaa ggaggctgac aacgtcgtcg 180  
caccaaggaa agctatctaa gctaacggag tggctgcatt cgtccaagaa tcttagttgt 240  
agttcttctc aagtatcttt gttggcagtg tttgttgctt ccttgatggt tttgttacca 300  
acatggagta aggatttggt aaggttgatg ctatccttgt gatcgcgagt ggtctttata 360

tgctaaaaca gtttcagata tttgagcatt agcccatcag

400

<210> 11511

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-C6

<400> 11511

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tcacagtcag aatgcccaca cctgtgtgta tcgccaccat ctctatttga cagataagct 180  
agtgtctgtc atgtcgagta gtagtctcct gactcagtc aaggaggatg gatgtatgct 240  
ctgtccgttg caatatcacc gcgtgatagc actccgtgat ggatgtaatg attgcgcgtc 300  
agtcgaacta ctgtggcttc acttgtcgaa gcctgtacca ttgtggaacc gctactcaac 360  
aggctcaacc cctagctaca cgtccaggag atgtcaaaga tctaccagaa tgacctgagc 420  
attc 424

<210> 11512

<211> 441

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-C7

<400> 11512

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tactgcacgc ctcacattga ccagctcttc aagaggaccg ggagcctgga caagagcttc 180  
aattgcactc caaaggttgt caagccagaa aggaatgttg ggaatgagaa tgctactaga 240  
gtctccagcg catttgctgg cactagagag aaatgttttg gatgcagcaa gacagtctat 300  
ccaattgaga gggttactgt gaataacact atgtaccaca agagctgctt caaatgctgc 360  
catggagggt gcaccatcag cccttcgaat tacatccgc acgaaggcaa gctcttctgc 420  
aaacagcacc aaaaccagct g 441

<210> 11513  
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 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-C8

<400> 11513

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 ggtctgtttc aggtgttgga cctgtcaaac actaattcac agttgtcagg taagtaatcg 180  
 taaccagatg gctcatgtga cgatgatgcc aagtgcataa aagagcactt gtctgggggt 240  
 tcgaagctct gcatgctcct agcccatatc tgatttgata caacttaaga catctcctga 300  
 cctttacagc ttcccatgcc aatggcgatc atattacact gactgatctg ggatgtgtct 360  
 gacgctacaa ccatatgtgg catgcagtaa agttccattt aaccagttgg agattcacc 419

<210> 11514  
 <211> 378  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-D7

<400> 11514

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 atatcatcat gcctcacaac gactcgctta aatttctggc ttatgctcac gatttaatca 180  
 tgctgcgaca cttactcagc atcagtcttc catcaatact acgcattaca tcatgatata 240  
 tggcagtggt tcatcttcat ccttaatcca tctggcttat cattttcaaa aggatcctga 300  
 cactcgctg gctatcctac gcattcaagg ttctggccat agattaacat ttactgcacc 360  
 acatcatggt gtaattgc 378

<210> 11515  
 <211> 386  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-E10

<400> 11515

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tcaaataaaa gcactcctga gtgtgtcatt cgactaaatc taagcgtctt aatcactcta 180  
tctttcgagc atctggcatg ggattcagtg tggagtttta gcgttttgga cctcctcgct 240  
tggcgactca cagtcactgg actcataagg tacttgaaga aacagttgca cacgcttggc 300  
atcagtccag catgcctgca aaaggtacca atgcaccctg tactacagca ttttgtacac 360  
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<210> 11516

<211> 411

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-E5

<400> 11516

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gttgccaagg gagatcccct gcaatgtcac aacattcttg ctgggtcagt gtgatccgat 180  
gttaaatggt atatttttcc ctatcgtgtc cttgcacaaa ctttatgcga ttgttatcag 240  
ttggtcagac gtcatgacag tgcttccttg gaacgttatt gaagcaactg ggacacattt 300  
accggattac ttccacatga ttatgtctga atacagatta tgacactacg agttgtctgg 360  
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<210> 11517

<211> 345

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-E7

<400> 11517

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cgtcacttct tgacccatca tctcgtctca gctgttgcca gtgtctgacg tgatcatggc 120  
 agtgcggaatt atggtgaaat caacctaaac cgatcactcg ccccttacag gccgggaaga 180  
 catcttggtt ggctgtttat cactgtgcgg tccctattag tcatcgaata tcgacgtggt 240  
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<210> 11518  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-F10

<400> 11518

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 ttgttttcaa agtttcattt tctctttctt gagtcatagg aaacaggata ctgttaaagg 180  
 gggtcgaggt aataactaatg aaactgattt ccaagtgatg ctcatctcaa aatcctacac 240  
 ctatgcaatc ctttctagtg aagcaattgg aaatctcata tcatctcagt caatttcttc 300  
 agtgacagag atgaagatct tctggtctct gatgaatttg tcttgactga cgagtttagga 360  
 attcgccagt gtggattgcc tacacagtga ggaacatgat agccctgacg aattctgtga 420  
 tgccc 425

<210> 11519  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-F2

<400> 11519

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 gtgcttgga gctttttctg tcggcgctgg agatgaggtc cgagggcgct tcgacgactg 180  
 cccaacaggg atagtcgcct taccacgttc ccggcgggg tcgtttgtaa gcttgatcg 240



ccgttccgag cagggagatt tgacctcttc ctctctctct tcaactggagt cgtcgtcgtc 300  
atcaccctct ccttcgccgt cagattccca ctcttctccc ccgtctccac tttagcctcc 360  
actcgcctcg ccttctctcg cctgctcctg tgcctccatcg ggtgtcagat acatct 416

<210> 11520  
<211> 404  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-021-Q1-E2-F9  
  
<400> 11520

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ttgggctggg gtctgatggc caaagaacta agcaccctgg aagctgttgc atggaggaaa 180  
ttgacagttg gaggtgcagt ggagccatct cgatgcaact tcagtgcctg tgctgtacgg 240  
aatcgtgtcg ttctctttgg cggggaaagt gttaacatgc aaccgatgaa tgacacgttt 300  
gtgttggatt tgaatgctag caatccggaa tggagacatg tcaatgtaag ctacagtcct 360  
ccaggccgct ggggccatac actatcttgc ctaaattggat cttg 404

<210> 11521  
<211> 465  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-021-Q1-E2-G5  
  
<400> 11521

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catttaatga aaggaataag tacacaggct gttaatgcga acacacccat cttggatatt 180  
gagacgggaa aaccctatgt agagaacggg cggcaatggg cagctcgtga cattggcctg 240  
accataaaa catgtgcatg gatgccacat ggatttatga gtgtaaatac gaatattgga 300  
gctggacggg ccttcttaag atctctttac cgacagtatg cggattgggg tggtgatttt 360  
gtgaagggtg attgtatctt cgggtactgat tatagcccgg aagaagtaat aactatttcg 420

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465

<210> 11522

<211> 396

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-G8

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atgccgccac caccaccatg gtggccgcaa tctccctgat ctatgctgcc aggggccatt 180  
gaaggagtgc acttttcttt ttcttttttc ggtgttgatc ctctatttgc atgctagtat 240  
ggcactcgaa atggtcaggc cgctatctta gctgcatcac atatgatgaa tcggctggta 300  
ctatgcaatg aaatcaaatt tttgcttgca ttctggtaac aaaaacaccc cggcggaagg 360  
cagaatagcg gccgctctag aggatccaag cctacg 396

<210> 11523

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-H7

<400> 11523

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ctcaggttgg aggtgaaccc aaggttgagt gatttagccg atggaagttt cttaaaccatc 180  
actttttgtt gccctgggtg tgactggagc tcagggttga ggtgaaccaa ggttgagtga 240  
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agggttgagg tgaacccaaa ggttgagtga ttcagtcgat ggaagtttct taaacagcaa 360  
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ttacctcgtt gatatagttt ttgatctg 448

<210> 11524  
 <211> 435  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-A1

<400> 11524

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ggagcagatc tcagcccttg tcggttggac gactctgttt ttagatatgt ttccgagttt 180
tgttatggtt tgtgtcctac acgggaaggt gagacgacgg cggctccctg aagatggaat 240
atacgtctcc ccgtctagtc cctgtgccgt tgctgcacat actattgtct gtgggcgtgt 300
ggatgtgtgt cttcaacgaa tctgtctttg atggatttgc tcggatctgt tcatcattcg 360
tctatattct tgtgtcttta ggttgggtcc ttctgatcta cactcttcac ccacgatggg 420
ggccggttctg gtgca 435
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<210> 11525  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-A10

<400> 11525

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acatggagat ctcaaggcga acacttgcca tgtcttcggc aggtgaagaa tagggcagct 180
gcagctgcta ccgcgcttta tttttattct ttggaggctg ttgggtctcc ggccgggtgt 240
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tttggtttgg gttgtaatta atttgtttat catgtagtat atgtttttgt atgtttttatc 360
atgtgctaaa tatctatttt tacgtgcttt gctattaaaa aagaagaaga ggggaaggaa 420
gagag 425
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<210> 11526  
 <211> 431

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-A6  
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 tcttagccct tgtcgcaagt cctcgagatg gggcgacagg gtcacatatt tcgtgagtct 180  
 ctgcttggtta ccgcgtgttc ctaatccact acattctgga tatttgatcc gaggggcctc 240  
 tggcctgata gcactaacca tcacgtgggc atagtatggg cgttttgctg catatacatc 300  
 agccaaagct taatcgacct cagcgactga gcggcgcgcg cagggttgga ctgcgtaagc 360  
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 agttccccgg g 431

<210> 11527  
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 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-B11  
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 tatgtaagaa ctggggcatg catggagaca aggcataagg gtcataagtg ctttatcaga 180  
 caagtgccca actagttatg ttatattaca tggtagtaa gaaacatctt ccagagagaa 240  
 tagttccgtt aggggttcct tttcctggga ggcattgccct aagggtgcatg tccgaactgt 300  
 cggaagagc agaaaagcat ctggggggcaa ataaatgaat acgaaagatc atcttttagt 360  
 tcaccgaccg aatattccct taagaacgct agctttcggc 400

<210> 11528  
 <211> 376  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-B12

<400> 11528

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catcttcagg agaagtttca acgacagaac gtgataagga tgccctccaaa gtgacatagg 180  
gtcacacttc tctttaccat cttcagatgc acagccacag caggatgagg attctgacag 240  
atcttctgga ctacgactac ggaggagcca actccataca cgatccacac aggaggccccg 300  
ggaatggggg acattaggca ctagataata gctagctctc gcaaccattc aagatagtcc 360  
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<210> 11529

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-B5

<400> 11529

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gtcttgagaa ggaagaggaa gattatttca atgagagtga cgaggaagat tcagtaaggc 180  
ggactaaaca tgcacacagt gaacataatg aagaaagcaa ggatgatgta gccaatggaa 240  
gcgaaactgg tgacatatcc tcaaggccta aatctggtgg gcttgtggac tatgccgatg 300  
atgatgacga tgatttcaat ccgccacca aggagcctga taggcctgtg gatgacgatg 360  
acctcttaac tatatccaca gtgaatcggg aattagttaa cacgggggat ggaaaacatg 420  
cagatgggg 429

<210> 11530

<211> 272

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-022-Q1-E1-B6

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 ctaaagtacc tacactaact ttaacatgaa agggaaaaca cataaaaaaa aaaaaaaaaa 180  
 aaaaaaaaaa agcgggccgct ctaaaagatc caaacttacg tacacatgca aacaacgata 240  
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<210> 11531  
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 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-C1

<400> 11531

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<210> 11532  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-C11

<400> 11532

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 accattagtc tcatcatctt atggagctga gtattgtccc ataactattg ttgcatgatt 180  
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 ctgaacag 428

<210> 11533  
 <211> 415  
 <212> DNA



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 ccaaagtgag gaggtcgcca aggaccaatc ttcatagtcc ttgttcctcc acggcggtgt 240  
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 gaaaccgaaa ctgacttggc ctgagtttcg tcgttggtcc atgctcccgg ctatcctaga 360  
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<210> 11536  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-C9

<400> 11536

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 agagttcatc cgtgaaatct accactccga gtgggttagcc aatgtagtca tggttcctaa 180  
 gaaggataat tcaactcgta tgtgcattta tttcaagcat atcaatcggg cctgcccga 240  
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<210> 11537  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-D5

<400> 11537

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ctcatctcgc tacgtgaggg gccgcaggac gacacgaagg ttccattca tggatgcagc 240  
gctggttttc ttagccccgt aacctaaagtc aattcaatta cgacttcatt gtacaggaca 300  
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<210> 11538  
<211> 363  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-022-Q1-E1-E4  
<400> 11538

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acacgttgta cataagcatg attaaacctt tatgcaccat aatgacacct atatgcacag 300  
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<210> 11539  
<211> 236  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-022-Q1-E1-E6  
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tggtatttaag acgaaagggtg tatgacacat gcagctggag attcatgggtg tttagctcac 180  
tgttattaaa atggtctcct ccccgctgc ggtgttttat gtgatgtggt atcaat 236

<210> 11540  
<211> 445  
<212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-022-Q1-E1-E9

<400>       11540

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gttgaacgc tggaggtgac ggagacgtag agttctggca gggttgtggt gtggcgcccg  240
ggatgatgga gcagcggcga aggcaagaga gaaataatga aggagagaga atgatgagga  300
tgaaggtgtg ggggccggaa agggttttcg atgggccagg gtgttgaggt tctacatgta  360
tggtgtccag gcttccgcaa ggccacacac gtttgtctga agtttgctga aaaaagtatg  420
tctggaccac tcggcggacc gatat                                     445
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<210>       11541

<211>       414

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-022-Q1-E1-F4

<400>       11541

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gagaatacca gaaccaacta taacagcggc gatccagtct ctcgagcact atcagtcccg  240
ccagatcagg cttctcgggc gcgcacgtgg actgcactat gatcgagaat gtgcgaattg  300
ccgcggccat cgtcggcaga cgaatgtacc accaaatgtc ctggatccct gcgctatctc  360
tggacagctc caccagatca tcttcacact aatgtaacgt gatagatgcc cacc         414
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<210>       11542

<211>       412

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-022-Q1-E1-F9

<400> 11542

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ttactagaca atatactagt attaaaacgt agcggaaaca gatggaacta gttgctgtca 120  
ttgttttttt ttctcctgca gtaccggaga tgaatacaaa aaccctggaa ccaagtactg 180  
aaatgaatac taccaaaaaac gaaaatggaa caaatacggc acggatacgg agacgaaagc 240  
cgagtgttaa ccggaactaa agacccttg aaccatagac aaaataagaa gaaaagaaca 300  
aacttgttca gttaataaga tgattactaa atattatgat ataccatgac tataaaatag 360  
gatatgtcag cgacagcggg gtgctcgatt aaggattttc tctcgtgctg gc 412

<210> 11543

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-G10

<400> 11543

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acaacaagat caactgggca atgaaggaca agcaagagtt tgttgacatt gtggagactg 180  
tatacagagg agctcgtaag ggccgtgggc tgggtgattgc tcccaaggat tactccacca 240  
aataccgtta ctgaggtatc tgtgcttggc tattcaggtg cagtgtgtgg cctgctctgt 300  
tctgtgaagt gcgctgtgtg acccttgatg taatgtctgt caactttgaa agtgtcgcgt 360  
aactatgtat ttgtatcttg aatatcaaca tgcataaac ctgtaaccct ttgaaacaag 420  
acct 424

<210> 11544

<211> 375

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-G8

<400> 11544

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cgtgctgecc gctgacgacg acctggagta gtttaggagg atcccaggca ggaggcctgc 120  
 gcctctttcg atctgtatcc cagtttgtgc tagccttctt aaggcaactt gtttaactta 180  
 tgtctgtact cagatattgt tgcttccgct gactcgtcta tgatcgagca cttgtattcg 240  
 agccctcgag ggcctgggc ttgtattatg atgcttgtat gacttagttt atgtgtggag 300  
 ttgtgttgat atatcttccc gtgctaaaga aaaagggggg gatgggggga aagaagcggg 360  
 cgcgctagag gatcc 375

<210> 11545  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-G9

<400> 11545  
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 tagtttagat cgagtctggt cttcatacct acagtccacg aaaaagccac aaaaaaaaaat 180  
 tagggtagt tcatcatatc cgaaccaatc tgagcctttg cataatcttt ttagggtttt 240  
 gctttgttga atttgcggtt gcatcgtcgt gtctagttagc tgggtcttaga gtctagtctt 300  
 ttagagtttc gagttctggt cataagttgt caccgcccg cgcagcacc atcgcccctg 360  
 ccatctacca ccaccgcgta accgccagcg ctccga 396

<210> 11546  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-022-Q1-E1-H12

<400> 11546  
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 acacacattt gggcgatgac aagcttctga tcattcctat gatgaccacc ggtgtactgg 180  
 aagtcgaaga cggccacttt gtacatgtca accttagcaa gcaaattcat catggtgttg 240

atggagtcct cgcgcgatgc cgggttggtg gtgtacacca ccaagacgtc gttcgccctc 300  
atgtgggtgt ccacatgata cacaccatgc tccattggag cgccactaga tatcttctct 360  
gtattacttc gatgcattct tcgaccgtca tgtttattag gacacccatc atcagtgtta 420  
gctttccttg catgatca 438

<210> 11547  
<211> 57  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-022-Q1-E1-H2  
<400> 11547

atagtgagtc gtattacttc cgggtgcgtcg tcctctgcgc ggtgcagcga tcggcaa 57

<210> 11548  
<211> 99  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-022-Q1-E1-H8  
<400> 11548

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attaaatat tgccaccgca acagggttaga tttaaaaca 99

<210> 11549  
<211> 398  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-022-Q1-E1-H9  
<400> 11549

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tcctcctctc cgctaccag gaattcactg aatttggaac tgatggcggg ccagctgcaa 120  
agaatcttga gcctaagttt aacagcttca ccagtgatat atctgtacac ctgggagttg 180  
tggtgcctca tgtagagttg aagcatgtga ttgctgctag cattgggtctg aagggtctgg 240  
gaggtctgct gtttatcttg agcagttcat ttggtgctta tctcctggcc ctctaccttg 300

ctttcatcac accggttgtc tatgacttct acaactacga catggagaag gctgaatttg 360  
 tgcagatctt catgaagttc acagagaacc tggcgctg 398

<210> 11550  
 <211> 353  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
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 <400> 11550

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 cccagattag gaagatcatc gccgatcaag atcgcgcacga ccacattttt tgtgtccccc 120  
 caatgctcat aggtggggcaa cctagccacg gatccagggt atcaaaactc gcatccagtg 180  
 cggatctatc cgttgcaagg gtatccgaac agtgtgacac aagcaaatag tggagtttga 240  
 gatcggcgga agtactgtaa aacggtcgcg tactacatgt atgtgcagat gtacgcatca 300  
 catgccttga ggcgttctgt ggtactaatc ggaccacaat gcaacggtga aaa 353

<210> 11551  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-023-Q1-E1-A11  
 <400> 11551

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 ttattcccta actatactat attattatta tttatcctct tttttttctt tttatcaatg 120  
 ggtttaagat tcattagctt tctcattcta ctctttcaca aaggaatgcg aagagaactc 180  
 aatggatctt atcctattca ttgaatagat ttctttttta ttagagtatc ggcaagaaat 240  
 cttggttatt cactctatct ttaagtttta ttaagtaaa ccatgcacaa tgcataggac 300  
 tccccccca ttttcaaatt ttaaatttga aatacttta ttaattttta gtccttttaa 360  
 ttgacataga tacaaatact ctactaggat gatgcacaag aaaaggatcat gatagctcag 420  
 tttgtagagc agaggactga aaatcct 447

<210> 11552  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-A12

<400> 11552

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gtaccgaatc ccatactcac ctagaatggt ccctgcgcgg tctcctcggc tgggttgccg 180
gacagatcac tgggtggacga cacaactagc acactttgat taagtagaaa gtacatccat 240
tagatatata aactactaat acgcatacgt gaaaagtgcg cgtacgggtg atggactagc 300
caaaagtgcg gcctcgttct taaatggtaa ataataaaga aaaggaatga tagatggaat 360
cttcctata tgggtgccacc gatctggatc gccattgacc ggtcctcctg tagtgcatga 420
tcattccgaag gatcgaggtc ccagcccccag agccccg                               456
  
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<210> 11553  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-A2

<400> 11553

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aaaccactgc ttagccttg gttacaggac cggaacaaaa tgaagaagca gatgcaccta 180
ctcaagtcca accagttgct atagtgcag attccatgga gcatgctagt accgaagttg 240
atcaaagtat agaaacatct gtgcgtctcc cagaaaaaac ttctgttata cctggtagcg 300
aaccagaaga gaagaaagta gaggcacact cgcaagagga taatgttgaa gcagttgctg 360
cagagccaga acctgctgga ttccaggaaa atgcagaagt ttctaccaag cctagtccca 420
tggagatag                                     429
  
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<210> 11554  
 <211> 423

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-023-Q1-E1-A5  
 <400> 11554  
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 aacagcctca ggcactcctg cttgcggtag ggccctgacca gtgaccagca cgctgcacgc 120  
 agcaccatcc cgaacagccg gtgaggctgc cggcgccagc gacagcgagg tgctccttca 180  
 tcatcccgta tgatacgaca cgcttcccggt tccccctagg cacgggtatcg atatggccaa 240  
 ccaagtaata ccactccgcc gtagcacgca gccgatgcac caccgctccg ccgtagcacg 300  
 cagccgtcac aagaatgaga tggcgctgtc agtcaattga ctcagttcca cctgcacgag 360  
 tacagtccaa gaatcatggt cacatgattg tcccgatgga ggatgggttca gacgttcagt 420  
 ccc 423

<210> 11555  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum  
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 aagctaggcg tcttgagcg gtggaacac ggacacagga ttttaccat ttttgggctc 180  
 tctcaaagag ataataccct acgtcctact tttgattgta ttgatatggg tgtagtacat 240  
 ggtacattta tctaccagga gattgttcta atgaatatta gatcatgtat tgactagcct 300  
 ggccctcactt tatataatgt accagaggcc taggggttag aagagccttc atcttggggc 360  
 caagtcttgt ggaatatccc ttgtatgcga cataggctgc tagaactggc ccaatagtga 420  
 aacgccatgg ggggtcctct tc 442

<210> 11556  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum



<223> Clone ID: LIB31-023-Q1-E1-A7

<400> 11556

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taatcttagg gaggaggcga ctttagattc aacaatcaca ccgtcagtta cccccccacc 180  
agctgcagat gctagagcat cagaactcca attctgccca gtttgccttg ccaaaccctg 240  
ggacatggca tttggttgtg gtcacagac ttgttcaggg tgtggaccgc aggtcgtgga 300  
ttgccctatc tgtcgaaggc caattgatac aagagtaaaa ctatactaac agcctcacat 360  
gcctgactag gtttgactga agtacgtgg agtggtgaaa gtagaatcca tggaaaagaa 420  
aaagaactcc gtttgactg t 441

<210> 11557

<211> 345

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-A8

<400> 11557

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tcaggccaag aaggttaaca ccctcatcag gcctgatggc aagaagaagg cgtacgtgaa 120  
gctgacacca gactacgatg ctcttgatgt ggccaacagg atcggcacat tataagtcag 180  
agggaggggtc ctgcagtagg cgcttgtgtc gtggtttcgt gtgttattgg aattttgtag 240  
ttgttactta gcaaaggggc tcagtggctc gattgcctac cagagtggct gcacactttc 300  
atgaatttga ggcaatcgaa gtgacttggt gttgagcttt gcggtt 345

<210> 11558

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-A9

<400> 11558

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atgtcaaggc gtagcaccac cccgccggcc aaaatggcga catcggggcgt ctgtctgttt 180  
ttgtgccttg tgtgacagga agaattggaaa gcagggttta ggtggcaagg gtttcttttt 240  
gttctgtttc aggcgccttg tgcaaatggt gcctagtgtt gtatcatcgt ctctccttt 300  
tgtacaacaa caccatttga aacatgaacc tcctgtagcg gtagatagat ataggttatg 360  
caaaagacgt gggtcggtcg tcgtcgtctt catgaacacc gcaccgggcg tgttcgggtg 420  
ttgcatgcaa gtagaacttg ac 442

<210> 11559  
<211> 449  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-023-Q1-E1-B10

<400> 11559

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gtgaatcttg gaacaacct tgcttcgcaa gcactagtga atttaagagc agaaaccccg 120  
cagtcgaacc tagacgacaa aaaaatatgg aaaacagtat gttcttagtt acctaatttc 180  
atatatgtac tagcacttag atgacctaga taaagaagaa gaacatgaca tatcaaccgg 240  
ttttgagacg tatggttgct tactcattgt tttgcttcgg tacatcgata ttgattagtt 300  
taaaaccatc catgccaata tgagattttg ggtaatgagt cgcccataga attcgaacac 360  
ttgaaaccat acgccttgcg caatcatcca gggacttggt ggcaagagtc ctccgcgaat 420  
cgagcacctc anactttctg tcccttaaa 449

<210> 11560  
<211> 467  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-B12

<400> 11560

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 aaatatttca tctctggttcg gacttctcat ctcgcaatgg aagccaagtt ctttcggttc 180  
 ctgaagcttg ttggagttgg cttcaaagcc aggacagagc gcgaaggccg cgagttgttt 240  
 ctgaaactgg gctacagcca tgagggtgcag ttcaccgctc cacctgccgt ccgctgtctc 300  
 tgcttcaagc ccaacataat atgctgtact ggcatgaca agcatagagt gcaccatttc 360  
 gctggagctg tccgatgcag taaacctcca gaagtgtaca aggggaaggg catactgtac 420  
 atcgacgagg tcataaagct gaagccgggg aagaaacagc agaagaa 467

<210> 11561  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-B5

<400> 11561

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 tgcagccttg ggattagtcg tcgacgctgt ggctggtatg ccttcctagg agatctggtg 180  
 gcggcattga atgccataag cgctgtcgc atgtattcca ctaattgcgc actacctcgg 240  
 gcatctattt caaattcata gaggacgcaa caacttggtt tttcctcatc atgagaatga 300  
 gcttgacaaa agtcgagcag cttatccaga cggtcgcgctc aaatgctgga tgcatacatg 360  
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<210> 11562  
 <211> 441  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-B7

<400> 11562

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 ccttgaaaac ataccacatg gtaccggtgg aagaaagtgg gtcaaaaaag ttcagcaaga 180

atggggcata cttgagaaga atctagcaga ttatatattat gtcaggggtat ttgaggatcg 240  
tatggatctc atgagagctg tgattattgg agcaagtggc acaccatacc aagatgggtct 300  
gttcttcttt gacttctacc ttccacctga gtttccacaa gtcctccgt cggcatacta 360  
tcagtctggc ggcttgctg taaatccaaa cctttatgtg gatgggaagg tttgtttaag 420  
cctcttagat acttgaccg g 441

<210> 11563  
<211> 358  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-B8

<400> 11563

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ttacagtttt ctgtagttta gatcgagtct gttcttcata cctacagtc acgaaaaagc 180  
cacagagaaa aaataggggt agttcatcat atccgaacca atctgagcct ttgcataatc 240  
tttttaggggt ttttgctttg ttgaatttgc ggttgcatcg tcgtgtcaag ttgctgggcc 300  
tagagtctag tctttgagag ttctgagttc tgggcataag ttgtcacgcc gccgccgc 358

<210> 11564  
<211> 364  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-B9

<400> 11564

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aacacatcat acgagcatga tgcataccgg tggaagatgc agctgcaagg gaagatctca 180  
ccttctcgaa tttcacctta gcgaagacac gggaagtatc tctcgatgat caactcacag 240  
atattcacca gtccgcatcc aatgatcaca ttgctgtgct agtgtgacac attcaacgat 300  
atggttgggt aactacaata tcactttgca agtctggcta cgtgatatca attatocata 360

<210> 11565  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-023-Q1-E1-C1  
  
 <400> 11565

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gctcaccggt ggtgatgtgc tctgccgtgg ttgcatggat ggcattggga atacaagcga   180
tctcttggac gtcacgatg cgacgatgat gacgttgggt gccatggttg agatgttctt   240
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 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-023-Q1-E1-C12  
  
 <400> 11566

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gataaggaag aaagggaata tttagctaca ttgacaaaga agcaacttct attccttgag   180
gaagatgacg ctacatcgga agaggatgat aaccttatgg ataaaactga ggatgattgt   240
agtatggagt ttcttgagga gaagggattt ttcattagct ttgaagaaga cggaacactc   300
gattggtttt tctactctgc ttactgcgaa tgtgcttccc tgagtgacta tcaacgccta   360
gtcctaaaaa aattatggtg gtaccgagta cagcatgtgg agtgtctacc ctagctaccg   420
tcatagctat gatattgaac gagagtatct caagtactgc cagga                                     465
  
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<210> 11567  
 <211> 340  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-C2

<400> 11567

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 tgatggatat gtcagccttc taactgagag tggcaacacg aaggatgacc tgaagcttcc 180  
 cactgatgat gttctgcttg gccagatcaa gactggattt gctgatggca aggacctgat 240  
 cctgtctgtg atgtccgcca tgggtgaaga acagatctgc gctgtgaacg aaatcgggtg 300  
 tggcaagtaa gcagctgtgc gtggttgcct acctgcgata 340

<210> 11568  
 <211> 379  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-C4

<400> 11568

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 gagtacttag gaggctccta tgcaggaggc cttgcctttc gatcgttggt gattttgtgc 180  
 tagccttctt aaggcaaact tgtctaactt atgtctgtac tcagatattg ttgcttccgt 240  
 tgacacttgt gtattcgagg ttatgtattc gagccctcga ggccccctggc ttgtaatata 300  
 aagcttgat tattttaaaa gaaagaacat ttccaaacaa aaaagcagcc gctctacagg 360  
 atccaagctt aggtacgcg 379

<210> 11569  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-C7

<400> 11569

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aacttgcatt gcattgccgg cgatgagagt caggttcttg aaatcgccag tgtcgtcgtc 180  
gtagtagcct gcaggttcgg ccacgacgga tgccaggccg ttcacgtcaa cgccgacgtg 240  
gttgctgctg atgtcccgaa actccgggtt gaggatggtg tcaagctcga cggcgaagac 300  
gtggttgctc gcgttgccgt tgttctgggg gttgaagagg ccgaggaact ggctgggcga 360  
cgccatggac aggttttttg tgggcgcgac gaagaaggcg aggccgttac cgcccaacgt 420  
gaccaggtcg gtgacaatgg cgaacacg 448

<210> 11570

<211> 221

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-D11

<400> 11570

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gaatccggcc acggtgttgg gttttccggt gtgcctccca cagcattagt ccgaagctta 180  
cataagggaa agagcttcaa gtttgggtct ctgcagatgt t 221

<210> 11571

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-D4

<400> 11571

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actttcttct cccaaacttt ggtggtgtgg aaagccacat ctattatcta tcacagtgcc 180  
tccttaagct tggccataag gttgttgtca tgacacatgc atatggaaaa cgttctggag 240

tacgatatgt tactggtggc ttgaaggttt attatgtgcc ctggaggcca ttcctgatgc 300  
agaatacact acctagatta ttcattgacat ttccaatcat aaggacaatt ccttattcct 360  
gagatgatat ctgtttgtgca tggacatcag gccttttcaa cactgtgcca cgaagcggtg 420  
atgcacgcct aggcgaagg ggt 443

<210> 11572  
<211> 414  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-023-Q1-E1-D5  
<400> 11572

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ggtatggttag gccactttgt accctctgcc tgacagagtg tgatatggtg tttggccgag 120  
ttatttttgg agaacgaggc gataacatac gccctttgaa gctctctctc tctacagggt 180  
ctctttagt tttgcaaggg agaagtgtg atgtagccaa gcgagctatt cctgctacac 240  
gtaagcagcg aatccttcta acttttggga agtctgtggc aagaaaagtt gcaccatctg 300  
aaagtgttc acggcctact gcccggttaa cacctcctc catgccttg ggtccaccat 360  
caaggccagc taatgtaagg ccacactctc caagtccgca gcacttcgg tata 414

<210> 11573  
<211> 394  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-023-Q1-E1-D7  
<400> 11573

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ggcctcctgg tgcgccttgg tgggttgtgc tccctcggga gcacccccag gtgattcttt 180  
ggccattgg ttgtcgtctg gtccaagaaa attctccaga aagtttcgct gcgtttggac 240  
cccgtttgg aatgatttcg tgcgatgtct aaagacatgc acaaacagc aactggcact 300  
tggcactatg gcaataagtt agtaccataa cctgctataa acatgactac acaatgatta 360



taatacatcg aagattgata gtatagcagc atgg

394

<210> 11574

<211> 461

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-023-Q1-E1-D9

<400> 11574

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agattatccg acggatagca gagtgcattgt ttcagggtccc gagggtttca gcagagccat 120  
cagagcagca gtgattcttc ccaacttcag gttggcgact ggagtcagca agttcactgg 180  
tgagtccaag cctgacactt ggtagagga ctaccgagtg gttgtgtaga ttgggtgggtg 240  
caatgatgaa gtggccatga agcaccttc tctgatgttg gagggtctcg ccagagcgtg 300  
gttgaatcag ttagcaccgc gcagtattta tagttgggag gaacttgccc gagggtntgt 360  
tagaacattt gaagggtacat gcaaacgact agcagggcta acaaagctac aatcttgtgt 420  
gcagaagccg aatgaaacct tgaaggatta tatccagaga t 461

<210> 11575

<211> 433

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-E1

<400> 11575

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aaaggggtgt tggttgata atgaagctct tccttgagg gccaaagcgt cgcaccagca 120  
aactccacta gcgaaaatga agcttttagta tacagaatgt ctcttcattt acatatattt 180  
tttgcccggt ttggtcata gcacgtgag aagttgtata ttggagccat ttgatgtaac 240  
cattcttttt tctttctaca gaagatgacg aaaatgttgg agctatacaa cgttgtattg 300  
gacagtaaac agaatagcct ccaagaatca ttctctcca tcttatattt tgctgctatg 360  
gggtgggggt ggatatgtaa aagctgttat tcggtgattg ttgaacggtt gtaccaaag 420  
catttttctt ttc 433

<210> 11576  
 <211> 461  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-023-Q1-E1-E10  
  
 <400> 11576

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atttctcctg aaaataagtt caaataaaaa catgggagaa ggtcacatat gtgtaccagg 180
aaaatgtttg cgcaaaaatg cagaagactt tactatccat gagtttgtgt acatgtcct 240
tttttgtggc tgetgcaggc tgcaagacct gtogtcgtca tccccactta gcccatgtca 300
tgaagcttcg cccccctact actgctacac gtaagtgtc gtctgcaatt tggcacgaag 360
ttgaacaact ttagctagag ttcagataac tgaatggcag aggttgctct agaactacag 420
tagtatactt cagagttcag agtgcagata attaaatgtt c 461
  
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<210> 11577  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-023-Q1-E1-E11  
  
 <400> 11577

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gaagattgtc cagatcaagc gtgccgaggg tgaagcagag gccaagtacc tgtctggcct 180
cggtatcgcc cgccagcgcc aggccattgt ggatggcctg agggacagcg tcttgggctt 240
ctcagtcaac gtgcctggca ccaactgcaa ggatgtgatg gacatgggtc tgatcaccca 300
gtactttgat actatgaaag agatcggcgc atcctccaag tcctcggcgg tgttcatccc 360
ccatggccct ggtgcggtgc gcgacatgc cacgcagatt cgcgatggtc ttcttcaagg 420
gcagtctgcc tctgaaaaca agcagttggc tttgccg 457
  
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<210> 11578  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-023-Q1-E1-E12  
  
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 ccctgccatg tcagaaaaaa ccttgctggg tcatggtgaa tgggtgtgaaa tggaatagaa 180  
 agacaattct tgtgcttgca cagagtggaa gcgaatgtga tcgggggggtc accgtcaaga 240  
 gagtgcttcc ttggctcggt agcaaaggaa aatggctact agtatactac tcttgagtc 300  
 acaaggttcg tatatgtgtg ttctgtgagc taaaaggatc tatttctagc atctaaagaa 360  
 cttatggaca ttttagtata tatctgatga actagcactc taggatggat cagtttcgta 420  
 ctgagacat 429

<210> 11579  
 <211> 421  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-023-Q1-E1-E4  
  
 <400> 11579  
  
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 tcatgaagag agaagaagtc tcgcaaatct gtgtggcgga tccgtactac atgcacgagt 180  
 ctttcttgag tctcggtgac tttgagcgtg aaactgctag ggactacctc caaaacttca 240  
 tggtagacaa taaggaccag gaaattggcc tcctgcctta tcatccaaag taagtcaatt 300  
 ccggacaacc ctttcgtaca tttcaatcat tccttctcgc tcatatggag aataatttga 360  
 ggtgtctttt ccccgacgca acgggcgcgc cgtccttata gttctttaac cgcgagtcctc 420  
 c 421

<210> 11580

<211> 460  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-E8

<400> 11580

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 ttacagtttt tCGTacttta gatcgagtct gttcttcata cctacagtcc acgaaaaagc 180  
 cacaaaaaat tagggttagt tcatcatatc cgaaccaatc tgagcctttg cataatcttt 240  
 ttaggttttt gctttgttga atttgcggtt gcatcgctcg gtctagttgc tggctcttaga 300  
 gtctagtctt ttagagtttc gagttctggt cataagttgt cacgcgcgcg ccgcaccatc 360  
 atcatcgccc ctgccatcta ccaccgcgcg ttatccgcca ccgctttgaa tccgctgtca 420  
 tataccacca ccgctgccat ctactacat atatccacca 460

<210> 11581  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-E9

<400> 11581

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 gcaaaatctt ctagttcaga tgcaaaccag gttccaaacc atgtcagaga acatcatcac 180  
 gaagatagat gaaatgggtg caagaattga tgaattggag ctgagcatca atgacctcaa 240  
 ggctgaaatg ggagcgatg gtatgacccc tactaaagtg aaggacgaag aatcaaagcc 300  
 agcagacagc tcttcctgag tgaagcagaa gtagcagaag caaggcgtat tagtcttggt 360  
 tccatgtcga tatcatcagc cattcatcac taacttactg catgttatga gatgttattt 420  
 gcactgttat atgcatatga gatatacagt acct 454

<210> 11582  
 <211> 426  
 <212> DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-023-Q1-E1-F1

<400>       11582

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tacaagaaca ttctgtagta ttagtaagag gaggaagggg taaggattta cccggtgtga  180
gatatcgcat tattcgagga accctagatg ctgtcgcagt aaagaatcgt caacaagggc  240
gttctaaata tgggggtcaaa aagccaaaaa aataagtgat tttagccctt ataaaaagaa  300
aacggattct tgaacctctt tcacgctcat gtcacgtcga ggtactgcag aaaaaagaac  360
tgcaaaatcc gatccaattt ttcgtaatcg attagttaac atgggtggta accgtattat  420
gaaaga                                           426
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<210>       11583

<211>       466

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-023-Q1-E1-F10

<400>       11583

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aggaagctaa gtctgagcaa tcaattatcg aaactgaaat accagctgga atatgaacaa  180
aagagagata tgcattgctc gattgcaaag ttaaacaaca cacatgagac cctagagaag  240
gagctgaagg gcttgcagga gagagaaact cgtgctaagg ctgatgctga acatatttca  300
aatcagatgg aagagctgaa ggctgaggct gaagactgga agttgaagtc agatgaatgt  360
gagacagcaa ttgaggaact aaagaaacag aatgatagtg ttgctgctgc attggcaaag  420
ctggatcgcc aagtgaagtt aaaggaagga cagatagttc aactta                       466
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<210>       11584

<211>       459

<212>       DNA

<213>       Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-F11

<400> 11584

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gtcccccttc cccctgctgg agcttaattt tctctttgat tcacgggtgc catgggtcca 180  
gggtgttggt gtggaaagct cttgtagacg cagctatttg ttcagcttcg cgggggactt 240  
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attgaagagg aaattatcat gtgcttgaag aaggaatggt gtcagcccc attgttatac 360  
taaactctct gatggcttta gtctgttctt ctctttactg ttgcactgca gtttcccagt 420  
gtcgtagttc tgtatttagg ccataattaa tcttttttg 459

<210> 11585

<211> 468

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-F12

<400> 11585

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tggaaactcc tcattggctg ggggtgttaa tgagttatcg gatccaaaac ccgacctgat 180  
agcttaacgg cgttccgttg cgggtggatgc cacatgtcgg tcacccttga cgaaagcact 240  
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tgtcatggaa cacttctacg acagcacagg tatgactacc ttgactatgt cataaatttg 360  
tcatggatgt acatgcatga caaaaaacgc gacctactgt gacaaacacg tatcatcacg 420  
gaagtgtatt ttttttgtaa tgtatgatgg actcatatgg aataactt 468

<210> 11586

<211> 425

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-F2

<400> 11586

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catgatacca cttgttagaa taaatccgag acgctccgct gatctattaa ggaccaatca 180  
atcacacgag cagcacaccg agatttgta acgagggttca ccgatatggc tacatccccg 240  
gggcctgact atggacgctc ctctcgtgac accgtcacia ttccacaccc ggctcgccctg 300  
gacaccggca catgccggcg gcttcccccg cggtccgggtg ctattatggt ggcataggct 360  
acatcgtgtg tctacctccg ctatatatga aagggttagg atacaagtgt cctattagga 420  
cataa 425

<210> 11587

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-F3

<400> 11587

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gaaaaagatg gcatgaaata gttgacgtgt atattgttta actaaaacgg atagcatgac 180  
ataatttcac atatatgatg tctatctaaa ctggatagca tagcataaca taattcacag 240  
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tcaggatcgc atcatttaat tcacatatgt gatttatatg ctaaacagag ggcattagat 360  
atgatgtctg aactaagaac atgggtgttta atattgtgta tatgatgtct aatctagcct 420  
cggtttgtc 430

<210> 11588

<211> 455

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-F5

<400> 11588

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aaaatcacta agggggcacta gatgcactta caagaataat ttgaggtgtc ttttccccgc 180  
agcaacgggc gcaccgtcct tatcggttctt taccgcgag tctcccacgc cgtgtatttc 240  
gacccttcca gagactacga gaaaaaggac tacaccacaca taatgaatat tctagatgat 300  
gctctccaag gcttcagcat tagaggtggc cacatgcaga tcaagaaaca aaggaacaag 360  
aagatggggt tgcacataa aactaacttc tctgcatcc atgttcaga accaaacaag 420  
aaagatggat tctacatcat ccatctcatg attga 455

<210> 11589  
<211> 313  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-023-Q1-E1-F6  
<400> 11589

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tgctgacatg aaatggagac tgttcttcat gcatacatc caatcatctg tccatatgga 180  
atatgacggg taatgcagca tagccgaatc ggtcggagac ctagcatgat ctttggaggg 240  
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gtctgtgtaa gtt 313

<210> 11590  
<211> 457  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-023-Q1-E1-F7  
<400> 11590

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tgctgatgtg cccacaagtt cgcttactag tatccctgtg gatctgcccg tagctgcaac 180



cacacctgtg gatgcaccgc ttgacatcga cagtcttaca gaagagaaac tgctgcacga 240  
gctggaggaa atgggcttta agcagggtga tctgaacaag gagatactga ggcagaataa 300  
gtacaacctg gagcaatcgg tggatgatct gtgtggtgtc aatgaatggg gacctctgct 360  
ggcgggactg aaccaaattg gatttgatga caggagacc aacaaggagc tgcttgccag 420  
aatggagga aacatcaaac gacctgttat ggacctc 457

<210> 11591  
<211> 465  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-F9

<400> 11591

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tcatgacaga atttactccg gagcaacaac atgcattctg ccagtttgtg actggtgctc 180  
ctcggcttcc acctggtggc tttagcctccc taaatcctaa gctgactatc gttaggaagc 240  
actcctcgac tgcggcgaat acttcaaattg cagctggagc agcagagtct gcagatgatg 300  
atctgcctag tgtcatgact tgtgccaact atcttaaact tccgccatac tcgacaaagg 360  
aggttatgca caagaagctg ctttatgcta tcaacgaagg ccaaggggtcg tttgatcttt 420  
catagtgggt tcaaaaactaa catacagatg gttggtgcac atgta 465

<210> 11592  
<211> 435  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-G10

<400> 11592

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tgaataaagc attcatgaaa accaagaatt gaaagaaatc gaaaatttga aaaggtatgt 180  
atcaattgaa aaaaagttca caaaaaggga aaaggtttgt gaatttggaa aaagttcatc 240

aaaatttcaa aaaaatctca ttgaatttgg aaaaagtttg tcaaatttga aaaatatttg 300  
 aaagggttca ttgaattttt tcaaaatcat acaataaaaa gcattaaatt ttaaaataag 360  
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<210> 11593  
 <211> 463  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
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 tcagggccac cggcccatgt atacctcgag caacgaagcc agggattttg ccatgagaca 180  
 gcagatgata cagcatcttg aactgctctt ggtgatgtac aatgtgaccc ttgccctgtg 240  
 gggacatgtc cataggtatg agaggttctg cccacgaag aattcacagt gtctgaacac 300  
 atcatcaagc ttcatatacc ctggtgcccc tgttcatgtt gtgatcgga tggcggacaa 360  
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 cctgngatct ccatgtaccg tgggtggtgag ttcgggtaca caa 463

<210> 11594  
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 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-023-Q1-E1-G3

<400> 11594  
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 accaccact atactactac ctagttacag caattccttt tcatcttgc caaccactta 180  
 tgtactatta gctagctgcc gctggtgtct ttttagttct atatttggtg tactgaacca 240  
 gtcgtaagag agggagtttt tagttccatc tacctagttt ttttctgcgt tggagcaatt 300

caggtgtact acacccgaga gtagaaaaca ttttgttatt ttttggtgaa acttttgcaa 360  
 tacctaaaac atttgttcat gtttgatgac acaaaatata tagtcaaaat ttgcgtgc 418

<210> 11595  
 <211> 415  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-G5

<400> 11595

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 ctagggctta agcttagtgg tcgtgtccta cagtcaacgt gtgctctgat accaactttg 180  
 tagcgaccag acctcaaatg gcctgtgctg ctgtgcacca gtgtcatccc tggatcagta 240  
 atgctgacac gcacagtaca aatggaggat ttataacaga gtagcaatca cacacttatt 300  
 acatccaata tctccaaaga gattaagtat gataagcatg gcttaaggcc atctaataac 360  
 gataacagcc gaagacttgg gagataagtg aatccatcaa ctccagcggc atcac 415

<210> 11596  
 <211> 430  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-023-Q1-E1-G6

<400> 11596

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 gttcaatctc tcgaagatgc ttataagaat atagatgcaa gggcttatag ggacgagtgt 120  
 atgtatgcat gtacatgagc gtgtgagtct tagaaatctt tggaagttag ataggcgggtg 180  
 cgctgggtggc gtacatgaat taccaatcca aatatacttg cacgaggctc tgccgtacca 240  
 ccacaactgc ttcaggtcaa aagggtggccg gtgcccgtgc acatcaccgg caccagatcc 300  
 ctccaaaaca ataaaatcta gtgttgtaag gtatcatttc atctgttcca gcacgagcgg 360  
 ccggctcagc atttccatct gagtagtcca tccgtcttgg aaaacttgtc gtaacctttg 420

ttaagcaatc

430

<210> 11597

<211> 388

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-G7

<400> 11597

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ggacgacata gogatgtatg ggttgatctt gagagtcogt ccatgcatga tctatagtgc 120  
tgctcacatg ggttcacttc catgcgatgc atgcagaatc tcatgagcaa catttagttc 180  
attaagcact ggtcattagc atttaattaa tcaaagaaaa accagccgtc acagccatta 240  
tctgaacggc aacacaatgt gttttatgca atcattagtgc gctatatgtg caatgaaaaa 300  
gaaaaacctt taaaacttgc acacaatttg cattgaattt gcactttctg aaatatgcag 360  
agaataatat aataatgcat ctgtcgca 388

<210> 11598

<211> 324

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-G9

<400> 11598

gggtcgactt ccatcaaaga gatattcatc atctcatcga aagacgggac acctttgcct 60  
ctatcagaat tagtattatc catagcgtga agtagtatta ctagttgaaa agctagtttt 120  
atcaactaaa caaatcttg gagacggtgc tacaaaacta atcattgact gcattagcac 180  
ttcggcttac agaagcaaca aataaaaaaa gaaaattgaa agaaaaaaag cgggcgctct 240  
agaggatcta acttacgtat gcgtgcatgc gacatcaaag ctcttctaaa gagtgtcacc 300  
tattttcatt tcaggggctg tcgt 324

<210> 11599

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-H2

<400> 11599

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cgagttctta cctcgaaagc gtcattcttg caaaccaaga taaggataac ttcctcgtgc 120  
cttactttcc cgagtaagtc caccctcaa ccggcccgtg acatatgaat tcttacattt 180  
cgatcgtttc tcttttaaca ttccgtgttt tctgcagtga cacacgttgc acgctcatcc 240  
tcctaagccc caaatattcc atggccacgt atttcgacct ggaccgtcag tcgaacgtag 300  
actacacaaa tgtcaagaag gttcttgatg atgttctccc cggctacgcc aaatctggag 360  
gcaccttcac caggcctatt cgtaagtacg gcaagcacgt gttctccac aatacgatgt 420  
tctgctgcg 429

<210> 11600

<211> 420

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-H5

<400> 11600

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tttgtcagcc aatgcggggc cattgttaga gacaacgtct cgatcgccgt ccaggagtgg 120  
aatgagccaa agaaggcacg aattgatggt ttcacttttg tcgataagag aacaaaaaaaa 180  
gattgcttca agaagcttat ggaacatttc gttctacctc cggaatacaa caaattcgat 240  
gaggagggtg acaagattga ggaaaacaag gagaggagga cgctagtcaa acagttcgct 300  
cttcataaga tggccgacgc attccggaaa ttcaagcaaa atctagccca tgactttgtc 360  
aagcagaaca agactccgga tttcaaagga caatatgaga aactgaaaca tgattggcca 420

<210> 11601

<211> 373

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-H6

<400> 11601

attccccgggt cgacggggcca tgcaacgcct gccactacac cgacaagaat gataacaact 60  
 actgcagcag cgaagctggc taccgtctgc ctttgaaatg tgtacacgta cacaatggta 120  
 caaaccaaga taacacaaca caggatagaa acatggtggc tgaagcatcg acgccaactg 180  
 acccaaagca ttatgttact gacaggactt gtgtagcatt atacgatgca tagaagctat 240  
 caactcatgg gttccacgtc ctcatggctg gaacgtcgct tgtaagtggg ccgttcgtgt 300  
 attaccggtg acggcaagca agtctaattg aaggggtttc aagaatcgcg acaaacgctc 360  
 ctacgtttta tca 373

<210> 11602  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-H7

<400> 11602

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 aagacgggac acctttgcct ctatcaagtg gtatcagatt tccagggtgc tcgatgagat 120  
 ttacagttt tcgtagttta gaccgagtct tttcttcata cctatagtcc acgaaaaagc 180  
 caaatttttt ttagggtttag ttcatcttat ccgaaccaat ctgagctttt gcataatctt 240  
 ttctgtattt gctttgttga atttgcggtt gcatcatcgt gtcaagttgc tggtcctagc 300  
 gtctagtact ttagagtttc gagttctggt cacaagttgt cagccgcgcg ctgcaccatc 360  
 gtcatcaccg ctgccatata ccaccatcgt catcaccgct gccatatacc accgtcgtca 420  
 tcaacgctgg catataacat catcatc 447

<210> 11603  
 <211> 438  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-023-Q1-E1-H9

<400> 11603

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 ttccaactgt cctggccgca gtccggccag ggctctcctg ataacgagag atactttagc 120

gaacttaaga tgtcaccgaa aggtgagcgt tgaaagatat ccgctgcggt gaactccatg 180  
atcggtgccc aatcggattc gatcagaagg ggcgccggaa gtttgagatt cgggaaagga 240  
ttccggggcc ccggattcac aaccttcatt agggacangg tcatggttct gctccattgc 300  
cgtanagggt gcagccctcg aggcggtgtc tagccatccg tcctcgatct gcgcagccgt 360  
ctccaaattg aagatcggag cgggttcgag tacggcctcc aggggtactgt ccggctgcag 420  
aactaaatca tgctcgcc 438

<210> 11604  
<211> 461  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-A1

<400> 11604

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aaccgaatca cacagaacaa gggagtcctt gctctgatac caattgaaag tgctagtatt 120  
cgactaaggg ggggtgaata ggcgattttt atgaaagtct tcaaaacatg agagttttgt 180  
agaaaaacaa tagaaataaa cctattgaca tgcagcggaa ggtagactac actagacaag 240  
ccatagccaa gtactcaatg aactgaaaac acgaagacta ttagcagcta ggtagtatgg 300  
atcaggatgg aagatagtgt gaagccaaac tacattagtc atcacacagt gaagtcaaac 360  
agataatgca agcaggcaat gacttcacaa ggacaaactg taagtaaaga gaagtaagag 420  
gtagaaccag ttgcttggtg aggacagtga ttttgttga c 461

<210> 11605  
<211> 440  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-B6

<400> 11605

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aagatgtcgg gcctgtcaaa ataagcgggg cagccatta tcggcctact tgagtcaggc 120  
ccatttacag gaccgcccac acaagttaca cagaactgga ccatcaaagg cccattcgag 180

atgtcgacaa tttcgagccc atcattagtt taagcccgtt aacgaaccgc tacgttttgt 240  
 ggcccaattg cggcccgcgc ttcttttggc ctgttagcag cccatcgtca gttccagccc 300  
 gttaatggcc cataacgtcg tgcggccttt tctcggaacca ttctgcagtt gggccaattc 360  
 tagcccgtg tgaccttagg cctgtcctcg gaccattcgg tacatggggc aactcttgac 420  
 ccatTTTgtc gcttgacctg 440

<210> 11606  
 <211> 434  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-024-Q1-E1-B8  
 <400> 11606

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 ctgcctgcag tgtgcttgat acaatcgtca cgctcaacgc cggcggcatg gtagtcatac 120  
 gtcttctttc cgtcctttct ggaactgaat atgctgctgc ttactcccag cccatgtcat 180  
 cgtgttcgtg ccaaagetgc tacgcatgcc aactgtggct gcaacgtgcc tgactgtgcc 240  
 tgcacagacc ggggacagct tgccatccta taggagacac ctttgtgcgc actgctcatc 300  
 ggcttacacg atccacagtt gactgtactg tccatggacc gactcgggtca gctctcgttg 360  
 tgccgaaacc gctctcatca gctaccgaat cgattgatca tacacttttt accagcttcc 420  
 tggctgaatg ccta 434

<210> 11607  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-024-Q1-E1-C8  
 <400> 11607

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 agtacgcctc caagccgtac acttccatgt ggcaactgcg gatcatgtgg cccgtgtcat 180  
 ggctgtccat ggtactgacg tgggcatacg gttcttggtt cacagttgag aggaattcca 240



tgaagaagct ccggatgcag tcatgggcta taccaggata cactttccat tatggactga 300  
acaaggataa ggaggcaatc aatgacctga ttgagaaggc aatatctgaa gctggtaaga 360  
aaggagctaa agttgttagc cttggacttc tgaatcaggc gcatagcctc aatgggagtg 420  
gagaacttta tctgcagaaa tacccaaagt gggg 454

<210> 11608  
<211> 454  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-024-Q1-E1-E5  
<400> 11608

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cctcgtagc gtatcactcc ctctttgcat acttcgaccg cgacaacgtt gctctcaagg 120  
gatttgccaa gttcttcaag gagtcaagcg atgaggagag aggacacgcc gagaagctca 180  
tgagtagcca gaacaaacgt ggagggaggg tgaggctcca gtcaatcgtc acacccttaa 240  
cagagttcga ccacctgag aaaggcgatg cctgtatgc aatggaattg gctctagctc 300  
ttgaaaagct ggtgaatgag aaactgcaca acctgcacag tgtagctaca aggtgcaatg 360  
atcctcagct gaccgacttt gttgagagtg aattccttca ggagcagggt gacgccatca 420  
agaagatctc tgagtatgtg tcgcagctga gaag 454

<210> 11609  
<211> 334  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-024-Q1-E1-E8  
<400> 11609

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gccccaaagc agaggcgccg tacataaccgt gctcacggac gcatcaatcc ttacatgtcc 120  
aaccctgcc acattgagct gatcttgtca gagaaggaag agcctgtgaa gaaggaggct 180  
gataacgtcg tcgcaccaag gaaagctatc taagctaccg gaatggatgc attcgtccaa 240

cagtcttagt tgtagttctt ctcaagtacc tttgttggca gtgtttgttg cctccttgat 300  
 gtnnttgta ccaacattga gtaaggattt gtta 334

<210> 11610  
 <211> 478  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-024-Q1-E1-G5  
 <400> 11610

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 tgtatctgat gacggagctt caatgctgac ttttgatgca ttggctgaga cttcagagtt 180  
 tgctaggaaa tgggtaccat ttgtgaagaa gtatgacatt gaaccagag ctctgagtt 240  
 ttacttttgc cagaaaattg attacctgaa agacaaagtc cagccttcac ttgttaaaga 300  
 ccgccgggccc atgaagagag aatatgaaga atttaaaatt aggataaatg ccctagtttc 360  
 taaggcattg aaagtccccg aggaagggtg gattatgcaa gatggcacac catggccagg 420  
 aaacaatacc agggatcatc ctggaatgat tcaggttttc cttgggcaca gtgggtggc 478

<210> 11611  
 <211> 312  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-024-Q1-E1-G6  
 <400> 11611

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 atgagatcaa tgcagcttcc aggatgatgt cggcaacgat ggacggcaca gaggcccaag 120  
 tgattctcaa gattagagaa ccacagggca aaacccactc aaagtacgtg actggcgtgg 180  
 acattgcact gtacggtaca ggctaccgtg aatggtctga gacacaggtg cttacgttct 240  
 cggcaaactg aactggcact acagctaaag acatcaagga catcggttctg gtcagccatg 300  
 tattttcgaca cc 312

<210> 11612

<211> 468  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-024-Q1-E1-H5

<400> 11612

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 ccaactttgc caactcatgg ggagatgggg tgctagtgat ggtctctggt cttgtacaga 180  
 ccaaagagta cagcaaccaa aggaaattta tccagatggt tttccttgcg cctcaggaga 240  
 aagggtactt tgtgctcaat gattatttcc actttgttga ccaagaacaa gtgcaacctg 300  
 cacaggtgag agctcaggaa gcctttgaga ccaacatggc atccaacaca gtccaaacaa 360  
 gtgcagagta cattcatgaa gaaagtcaaa caatgcaagc tgttccagta acatctgaag 420  
 aaaatgatgc tgttgactgt tacacttact ctgagccanc acagcaag 468

<210> 11613  
 <211> 365  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-024-Q1-E1-H8

<400> 11613

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 tggacctgtt caaggcgcaa aagcaaagt tggatcagc gtcggcgagg agcatttctc 180  
 tctctctcca gtctgagctg tggtcacagc tccgtgacaa aaggatatac acaggtagca 240  
 cagtatcagt gtaagcatcc ctgctcaatc aagtaaagct cagtttactc gtgacaattc 300  
 ttttatgtc ggtaccggtc aatcagcggc agcccaacac gatatatgct tacgtacgcg 360  
 tgcac 365

<210> 11614  
 <211> 456  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-A1

<400> 11614

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aaccgccaga tgcttaaacc atattatgac cagctgggat gcaagtcggt gtcaacaggt 180  
gcttttaaac cattttttat gacgcttcca gcacccctca agttcccaca acaagtcaca 240  
aggagaaggc ggcgaaaata accatctcag tattggtttc catttgatat ggttgtgata 300  
ggaaaggtat gcattgccac cgtcgaaaga acctatgtgc cctcagctca gtttcaccaa 360  
tgtagtggag aaaatgatta ccgtgggtgt tccgtttttg ttttctattg tcgcttggga 420  
attgctacaa gagaggaacc atattacgga tatata 456

<210> 11615

<211> 453

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-025-Q1-E1-A10

<400> 11615

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actgagcaga gctgatggtg atgatgctat ggaagttgat ggccagcact ctgacaagaa 180  
gctgcgtatg aggtcgagggt ctaggtccaa atcacgacca attgaagagg ttgtaccagg 240  
tgacgggatc cgggatgttg ctcaaaagaa gaaggccatc aagaaatcga gggactctgt 300  
caagaacagg aacaaggagg ctgccgtgg agaggcggat cgcgtcatcc ccaccttgaa 360  
accgaagcat ctcttctctg gaaaacgagg aattggaaag acccagatgc gataaaccag 420  
tcaatgtgga cgttgctgct tgcaatcact cga 453

<210> 11616

<211> 391

<212> DNA

<213> *Triticum aestivum*

<223> unsure at all n locations

<223> Clone ID: LIB31-025-Q1-E1-A12

<400> 11616

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aatgccgatg aaatcatcaa tttcttcgct cggattgaac acaacttctg tcaactgcaca 180  
cgcacaaaaca cgcaaactga tccagagggtg tccagattta gtatgcatac atatgtgaca 240  
gcgtaacaa attcaatctt ggaccagtc aaatatctat ttcaagccga atgcatggac 300  
aacatcagac gtgtgaagtg cacttccata ggcatangaa aaacgatgct gncgggtgct 360  
ttcagttaac aaagcacagt cactaatgag t 391

<210> 11617

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-A4

<400> 11617

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ccaactgtga agcttccggt gttggtaggt gtgagatcaa caatggagga tgctggaaag 180  
aaactaagaa tgggaagaca atatctgcct gctcgcatga agaattctgaa ggttgcaaat 240  
gtccacaagg tttcaagggc gatgggtgtaa aaagctgtga agatattgat gaatgcaaag 300  
cgaaatctgc ctgtcagtgc aatggctgca gttgcgagaa tacatgggga agctatgaat 360  
gcagctgtgg tggtaacaac atgttatata tgagagagca agacacgtgc atcagcaaac 420  
aagctgcctc ctcatgcggc tggagcttca tg 452

<210> 11618

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-A5

<400> 11618

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ggtgcgttct tttttctccc tggttattta atttgctgta gtatagattg cagtgtgttg 180  
ttctttgggt atggtgaatt acattctctg tgaatagttg attctgggtc caatccaata 240  
cctgagggttc ttggcattac taggtttcta tttatatatt tatttacaaa gcagtagcaa 300  
aagattcaac cctgaaatta tgcctttat ttttgacaga tttctgggca agacaaagca 360  
tcttcaaatg tcaatgttcc tgtaactcct aaaatgaagc ctataccact atcaaatcca 420  
cctcaaccaa tgagatttgg tgat 444

<210> 11619  
<211> 353  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-025-Q1-E1-A6  
<400> 11619

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gctacttggt agctgcactg tgatttctc gaagaggaaa ggatggcgca gtacagtaga 180  
gataagtatt tccctcagtt aagaatcaag gttatcgatc tactacgaga accaagcaac 240  
acctctttag cagtacctac acataagata acagagacta gcacccaaca caaacaatgg 300  
gttgtcaatc ccttgagggt taattgcaag gatcaactct catagtgata gat 353

<210> 11620  
<211> 444  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-025-Q1-E1-A8  
<400> 11620

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gtctctctct ccagatcaga tcttacgcc gcccgcccga gtcttcttcg ccgccaaaag 120  
caaatgacga tgctctacga aatccactcc catgcccaaa tccaagacct gcaggcccgc 180

cccgatgagc tggggccactc caacaagcgc atggatgtga agcttgtctc tctggagtcg 240  
 gtgcgcatac cgcgcgagtc gtatgcactc ctctgcccgc tgatcatgga gtcgacgatg 300  
 tggttttgcc cggagctgga aatcctctcg gagctggcaa gcttgtcgct gggaattcaa 360  
 aagctcaagc atgatgtgtt agcccagctc aaggttcagg aggctaagct gggaaagggc 420  
 gccctggaag ccctcctact catg 444

<210> 11621  
 <211> 371  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B1

<400> 11621

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 gcataagctc atgagcggaa gcgccaacaa ggaggggaat gctgcagagg aagtcttgtc 120  
 cctggaatct ctacgcatgg cttaccctac cttgagcatc acggatgggtg atgatattgt 180  
 ttacttgttg gccaaagggca ccggcatgag ggctatgccg acagtattct ctgttgatct 240  
 cagtatgcgg actctgcgag gagtggcgaa gctacccaag aggcaccttg gttttatgcg 300  
 ctacttcctt gccagtggaa tctccaaaca tatcaggact ccaggtagaa gtgattcgct 360  
 tgggcaaact g 371

<210> 11622  
 <211> 446  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B2

<400> 11622

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 aacgcgctca tcttcggggc ggatgatacg ccatgggacg gaggcacgtt caagcttacc 180  
 ttgcagttta cagaagatta ccccaacaag ccgccaactg ttcgttttgt ctctatgatg 240  
 tttcacccaa atatttatgc agatgggagc atctgcttgg atattctaca gaaccagtgg 300

agccctatat atgacgttgc tgccatattg acttctagtc agtccttgct gtgtgatcca 360  
aaccccaact ctccagcaaa ttcggaagct gccagaatgt tcagccagaa caagccagag 420  
tacaaccgca aagtccgcga gatcgt 446

<210> 11623  
<211> 451  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B3

<400> 11623

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ccactaacgc acatcgccga agatgctgaa gtaaatttag aaataatgcg agtagtaata 120  
tcaagtctaa gacttggaac tttgatggac tgggatacca ctgttctcct aatcatccaa 180  
cagttcacia taaaaacaat ataatgttca ttaagtcatg tttctgagat tattttatac 240  
gtgcttggca cgtgcttttt actagtatga gtatgtacat gttttatatt gtagtatata 300  
ttactactat gttagtctgg aagcatatac cttttgttga atatacactc ttttttttca 360  
gtgggggtat atatataccg catattgcga ctcttttttt gggtaaagga acatatgcta 420  
tttacatcag tatacttcac aatatagttt a 451

<210> 11624  
<211> 438  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B7

<400> 11624

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ggcatctgca tccagcagct caagcaacaa catttcatcg gacacttaca gttcttttca 120  
tagctatggc accaaagaga ctgacagctg ggtgaggcca cacctggagc atgatggctc 180  
aggtttgctg ctgcaagcat acgatgatga cattgagaaa atctgcgctg tgatgaatga 240  
gctagcaggt ggtggtgtcg atggttctgc tgatcgtatc atggatgaga cgctttactc 300  
gaatggcgctc gatgatttca tgattctgcc agcaggcaag aatggggaga agaagaagca 360



gctaaccatc gaccaagaat tcgagcagta cttctcaaaa ctcatgcttt agcgtgatcg 420  
 taacagagaa tttgctgc 438

<210> 11625  
 <211> 397  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-C12

<400> 11625

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 aactagagaa aacaaaaaca ataggga aaa aatctactta gtgaagaaag caaacaagca 180  
 tacacaagaa tatcaacccc aactattgc tccccagcaa cgacgccaga aaagagcttg 240  
 ataatcccca agtgcaagga atcatcgtag atatttccaa aggtggaagt gataagtatg 300  
 gagtgtcgaa cccacaagga gctaaaggta agataaaaat tctctcaaat ccaatctgcc 360  
 attgagacaa ctctatgtaa accgaaagtt tgctttc 397

<210> 11626  
 <211> 461  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-C4

<400> 11626

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 ttggaattgc gtttcgttac cacaataat gaaaatgctg accaatctga agaattgctt 180  
 cctggtggga gaggaatgcg tgttactgat cataatgtta ctacttatat tcatctaatt 240  
 gccaacatc gtttaaacta tcagatccgt agtcaaagta cacatTTTTT gagaggTTTT 300  
 caacaactca taccaaaaga atggattgat atgttcaatg aacatgaagt tcagtttctc 360  
 atatccggct ctccgaaaag tttggacatt gatgacttgc ggtcaaacac caattatgct 420  
 ggaggatatc atgaggggtca tcagggttatt gatatgttct g 461

<210> 11627  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-C5

<400> 11627

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 aaggagaact ttgacttcag gcccgggatg atcagcatca acctggactt gaagaaaggt 120  
 ggaaacaggt tcatcaagac tgctgcttat ggtcactttg gccgcgatga tgctgacttc 180  
 acctgggagg tggatgaagcc cctcaagtcc gacaaggcat ctgcctaaga gcatggcatt 240  
 ctcttgggtct gccgcctctc aagttcgtca agacgggata atgttgctcc tgggaagtga 300  
 gaagaagcat tagacattga agcgacgctc tacactgggc ttgttgatg gtagtcagtg 360  
 ctaagtttct tactgtcatt tcatatattt atcctttcca ttttgagtcg ctgaaactgc 420  
 tgagtgatgt gcagtttgct 440

<210> 11628  
 <211> 320  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-C6

<400> 11628

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 aatcgcttct gagcagcacc gccgatgtct ggatgcccgt catcaccgag tctgctgatg 120  
 aaaggcgagg gtttgccgaa acaagtggca acaagggaga gcaagagaaa tctaagtaaa 180  
 tagcttggac tgaagccctt gtagtccttt gtgccagcct tgttctacat gtttcttaca 240  
 tgagtatatg tccatagcta tgtatcaaat gttctttttt ggggggataa cagaaaataa 300  
 tcacacatgt tgttcatgta 320

<210> 11629  
 <211> 442  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-C7

<400> 11629

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aggacaagta ccctcagcgc cctcttttgc cccaagacct taaaaagaag gccctgaata 120  
tccagatagc aagcattgtg tgttctggta ttcaacctct tcacaatctc accttggtga 180  
gatttatcga gcaaaaagtt ggaacagggg agagcatccc gtgggtcaaa caacagattg 240  
atagaggttt cacagctggt gagaacatga tcaaaggctg tgctgggaag tttgctatgg 300  
gagatgaagt ccaactggca gatgtattcc ttgcacccca gatttttggc gcgggtgactc 360  
gttatcaaat cgacatgtcg aactatcgca ccctcgcgag gctctacgat caatatatga 420  
cacaccctgc atttgaagct gc 442

<210> 11630

<211> 389

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-C8

<400> 11630

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ggccaatct agacaccatc tcggatgggg ttcaacacct ccattgggtg ctctctgatg 120  
atgtgtgagt agttctttgt agacctttgg atccgtagtt agtagctata tggcttcac 180  
tctctctctc tcttgagtct caatacaatg gtctcttgga gatccatag atgtaactct 240  
ttttcgggtg gtttggtggg atctgatgaa ctttgagttt atgatcagtc atatcttttt 300  
atatccatga aagttatttg agtttcgttg atctcttata tgcatgatct cttatagcct 360  
cgtatttctt ccccgacata tgggttctg 389

<210> 11631

<211> 446

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-C9

<400> 11631

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 gattaatcat cactctcagg atttttggag ttacagaata attgaaacct acaaagtact 120  
 acagactgtt ctgtttttga cagattctgt ttttcgtgtg ttgtttactt attttgatga 180  
 atctatggct agtatggggg ggtatgaaat atagagaagt tggaatacag taggttttaa 240  
 accaatataa ataaagaatg agttcattac agtaccttaa agtgggtgggt tgttttctta 300  
 tactaacgtg gctcatgagg tttctatttt gagttttgtg ttgtgaagtt ttcaagtttt 360  
 ggggtgaattc ttttgatgga tcatggaaca aggagtgga agagccta atctgggttat 420  
 cccatgggtc ccccaatata atccaa 446

<210> 11632  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-025-Q1-E1-D2  
 <400> 11632

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 ccattacggg agcccaacct ggcgcgactg gtcgagagt gagcggacca ggaccaacag 120  
 ccggatatga gtccgggggt ccgggaatac aggcctccac agcgggtggga cccgtgttcg 180  
 gctctaccac cgataagtgt gcggcctcgc gcgtggggtc cggccctccg tccataggca 240  
 acgcaacctg ccctggattt agttccaagg ctgcttcggg gatgatgtcc tgggcactgt 300  
 ccgatagcag gtctagggtc tgcttgctgt ggctgtccga cgctcctggc gtaggctcga 360  
 atccttcgaa catcaagtct ccgcggatat ccgccgtgta gttcaagttt ccgaacctga 420  
 tctagtgg 428

<210> 11633  
 <211> 417  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-025-Q1-E1-E11  
 <400> 11633

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ggacaccttt gcctctatca caagctctga ggctccagca tgcatatata tagtagagag 120  
 agtgtgaaga gtgcaaacc tagaaaacaa gcatcggggc tgcagtgtat atagatggag 180  
 tggttttatt tttatctcca taaaaatcgt tttaaattgt gcaagaaatg gaactcttta 240  
 tttaacgtag tgaagaaaaa tgctaggggc aatgctaata agtgaagaaa atttaacgct 300  
 ctaaggagtc agctcgcaat taacagtgcg cgccctcccg tcgcgcttac taatgttcac 360  
 gtgtggtaca cgaccctccg aagtgaacaa caattgaaac acacacggtc aaaatat 417

<210> 11634  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-E7

<400> 11634

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 atgaaatcaa ggactctgtt gtggctgggt tccagtgggc atcgaaagaa ggtgctttgg 120  
 ctgaggagaa catgcgtggc atctgctttg aggtctgtga tgttgttctg cacactgatg 180  
 ctattcacag ggggtggtggc caggtcatcc caacagccag gagggtcatt tatgcttctc 240  
 agctcactgc taagccaagg ctgctggagc ctgtgtacct gggtgagatc caggccccgg 300  
 agaatgcact tggcggatc tatggtgttc tgaatcagaa gagagggcac gtgtttgagg 360  
 agatgcagag gcctggtacc ccgctgtaca acatcaaggc ttacctccg gtcacgagtc 420  
 cgttcggggt ctcaagtacc ctcaaggctg cgacatctgg 460

<210> 11635  
 <211> 445  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-E8

<400> 11635

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 gcttggggat accccagaag gcatccctc tttcttcaac aagtatcggt atgttttcgg 180

attcgtttcg ttcattcgat atgtgcaagt cttggagcgt cttttgcatt tagtttttac 240  
 ttttctttca tgcaccatga tggatatgaga tagttcttgg tttatttata gaatgatcat 300  
 tgcacttcac ttaaataattt tgagtatggc tttatagaat gcttcatgtg cttcacttat 360  
 atcatttgaa gtttggattg cctgtttctc ttcacataga aaaccgccat ttgtagaatg 420  
 ctcttttgc tcaacttatat ttgtt 445

<210> 11636  
 <211> 258  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-F1

<400> 11636

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 ttggctgagt ggaaattttg gcctgttatc tgtcgtctaa atactgctag ctcagacttt 180  
 gtgaaacctt tgatgatgtc tcatgtactg gattcaatct gggtgtgttt tggaatattt 240  
 ttcatcgcat gagttttc 258

<210> 11637  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-F3

<400> 11637

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 aggaagcggg ggcgaaagct gctgcctcag aagaaaagga gcgatctata atgagagac 180  
 tgtcacaaaa tttatccgcg ataactgtcc tggagacca gattacaatt cttaggacag 240  
 aacagacaca gctgagccga tctcttgaaa aggagagaca aagagcatct gaaagtagac 300  
 aggagtacct agcaaataag gaggaggcgg cattacaaga aggacgcgcc aaacaacttg 360  
 aagaagaaat aaaggagctt agagccaggc acaaaaagga gctgcaagaa gcagcagaac 420

acatggggct gc

432

<210> 11638  
<211> 444  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-F5

<400> 11638

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ttatggttgg aagacctgcc ccaatgctcc tatcgggaaa gccttgagac aacaaaatga 180  
tgacgtcaag ttggagttca atacgaggct tactgatatt gtgacacaat tcaagatgca 240  
aggtgtgaac actgctttgt actacaagaa caaagagatg gaagatacat ttaacattgt 300  
gcctaccagt gcagtaagtg gtgaaggcat tcctgatctg cttctactat tggtgcaatg 360  
ggcacaaaag acgatggaag aaaagcttac ttttgttgat gaagtcacgt gtactgtcct 420  
ggaagtcagg tcatcgaagg tcat 444

<210> 11639  
<211> 450  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-F6

<400> 11639

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aacaagagtg gttctacatc accgagccgc gccgcactaa gtgggcagcg attccggagt 180  
tcagattcgg acccccatg aggctcacct cctggaatgc gaagggccat gactgggggt 240  
cccagatgga ggtgcatgag ctgcaaatgt gcatcactaa catgctgggg aagaacgttg 300  
gtctatccaa cgtggttcag atcaagctct tccgctgcat tctcccctac cagcgccggg 360  
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<210> 11640  
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 <212> DNA  
 <213> Triticum aestivum  
  
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 <400> 11640  
  
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 aattatttca taccacacag atcaggaaaag ccagccagca caagggggacg tatggaggga 180  
 ttttgcccttg gagaatatct aactgcttat gatctagtag aagtgttca agggatcaag 240  
 attctgctgg aattctacga gctgcacggc ggactctggc cttttagat atttcttaaa 300  
 tccagtggat gaactagtgt actgtatctg gttgaactgt actgtgtcat ggcaatatgt 360  
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<210> 11641  
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 <212> DNA  
 <213> Triticum aestivum  
  
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 <400> 11641  
  
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 atgctgttgt ggctgaagcg acttatggat gccgacatgc ttgaagattt tgaagatgaa 180  
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 attttgttta ataacatatt aatattttta gataatgaac tacatctaaa acttttttta 300  
 tgtagtgaag tagatctgaa cctcgctggt ggagttgatc tttgagtcga tgttaagtaa 360  
 aagttacatc tacttggtga tgccaagacc gccatttcgt tcctaaatgt cgctgccttc 420  
 ttatgtttca ccaat 435

<210> 11642  
 <211> 454  
 <212> DNA



<213>       Triticum aestivum

<223>       Clone ID: LIB31-025-Q1-E1-G4

<400>       11642

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cacttttctg gcaaaggatc ttccagggca attgtcatcg aaggctcaag ctttagttga   180  
agcactggag ggaaagcggg ttgactcatt tatggacgcc ttaagagata cagcagagga   240  
aagtggcttg ttatttaaga agcttgataa aagacttgag cgatcaatgc tgcattccta   300  
ccgcaaggat ttgatagcac aagtttcttc agagactgat ccagtttctt tcctcccaaa   360  
agtcgttgct ctactttttc tccaggcaca caacaagggt cttcaggcac ctggaagggc   420  
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<210>       11643

<211>       447

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-025-Q1-E1-G5

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ataggtagct catttgcgca gctagggggg taaatgaaaa aacaccctgg cttttcgcac   180  
tcgtttgaca cgtggaggac gactattatt ggtcacagaa gccgaggagc acaacattca   240  
ccagaagcca gacactattc aacagggtata tggagtttgg agaagaacct gccttgcaat   300  
gccgaagaca aatctgcgcg ccggactcat cgtcattgat gcctggttcg ggggctactg   360  
agggagtccc ggattagggg gtgtccggat agccggacta taacctttgg ccggactcct   420  
ggactatgag aatacaagat tgaagac                               447

<210>       11644

<211>       399

<212>       DNA

<213>       Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-G7

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gtatggaatt atgtcagcta aaaacctttt attggatgta tcctgatggg tggtcacatt 180  
ttggtggtat tatgtacttg cttgaactaa atcatgagtc attttcaaaa aaaagaaaaa 240  
gagaaataga atatggaaca aggaaataaa gctatgcatg tgaacaaaag aaatggacac 300  
taagaaggca caaatgagtg agcgtatgaa agcaaaaaag cgggcgctca aaaggatcaa 360  
agcttactta cgcgtgaagg gaagttcaaa cctcttcta 399

<210> 11645

<211> 454

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-G8

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ccgatgagac cgtcaagaca agttccttca aatgcttcac atgcagaggc cgaggccacg 180  
agtcctatga gtgcaccaac aagcggacca tgatactcaa tgacgacgga acctacgact 240  
ccatgagtga aggagaaatg gacgggtcttg agcaagtcgc catgcactgg caagtgaact 300  
atgaagagga acaagtcttt tgtgatgaag attcaagtct cgctcttggt gtctccaagg 360  
tattgactct ccaacataac caagaagaag accaaaaatg ccacatattc cacaccaaag 420  
ccggcatcac tgtaagatcc gtcaaggtca tcac 454

<210> 11646

<211> 348

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-G9

<400> 11646

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 tttttttttc ggaggatctc atgaacaact aaatcacgac ataatgaaca tgtagcctca 120  
 cgtactagta actcataagc aaacgatatt ccaaagctaa tgggggtggac gcttcagtta 180  
 gcatctaaac cagcactttt ttcccagttc cgagtcacac ggaccagtac ggcaaagggc 240  
 gcaaaaaaag agccatctac atatcattcc tatagttagg caagaaatga aaccatcatt 300  
 ttttatggat ttactccca ttatggaacc acacagatgt atgatgct 348

<210> 11647  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-025-Q1-E1-H1

<400> 11647  
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 ggtattggcc ataatttaca agaacattct gtagtattag taagaggagg aaggggtaag 180  
 gatttaccgc gtgtgagata tcgcattatt cgaggaaccc tagatgctgt cgcagtaaag 240  
 aatcgtcaac aagggcggtc taaatatggg gtcaaaaagc caaaaaaata agtgatttta 300  
 gcccttataa aaagaaaacg gattcttgaa cctctttcac gctcatgtca cgtcgaggta 360  
 ctgcagaaaa aagaactgca aaatccgac caatttttcg taatcgatta gttaacatgg 420  
 tgggtaaccg tattatg 437

<210> 11648  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-025-Q1-E1-H2

<400> 11648  
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 attgtccaga tcaagcgtgc cgaggggtgaa gcagaggcca agtacctgtc tggcctgggt 180

atcgcccgcc agcgccaggc cattgtggat ggcctgaggg acagcgctct gggctttctca 240  
gtcaatgtgc ctggcaccac tgcaaaggac gtgatggaca tgggtgctgat caccagtag 300  
tttgacacta tgaaagaggt tggcgcgctc tccaagtcct cggcggtggt catcccccat 360  
ggccttggcg cggtgcgcg catcgccacg cagatccgcg acggtcttct tcagggccag 420  
tctgcctctg acaactaagc actttgct 448

<210> 11649  
<211> 418  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-H6

<400> 11649

ggtccggaat tcccgggtcg actggacata taccgccgag gatcatattt tacagggatg 60  
ttgtcagcaa aggacggctc aatatggtta ttgagcatga actttctgcc attaaaaagg 120  
catgtgcgtc gctggatcct atttataatc cacaagttac cattattatg gttcagaaac 180  
agcaccacac acgtttgttc gctggtaact atggtgttgg gagcacaatt ttgaaagtg 240  
gaaatgtatt gccaggtagt gtggttgata aagaaatatg ccatcccat gactttgatt 300  
tttacttgtg tagccatgct ggcactaagg gagtcagccg gcctgttcgt tatcatgttc 360  
tctgggacga gaacaatttt acgggcaacg ctttgcta at tctcactaac catctatg 418

<210> 11650  
<211> 456  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-H7

<400> 11650

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tcggctccct cctcgtcagc gtctccaagg acgactccat cttctacaat gaggcgaagc 120  
tgaggggggt gctgcacttc tcgaacgctt gcggcgccat ctgcaccacc aagaaggag 180  
ccatcccggc gctgcccacc accgccaccg ccctggagct catcagcaag ggcagcaact 240  
agagacgcct tgtgtcgcgc cgtcgggtct gaatcttagg ggagtttagc tgcactttta 300

ttattagga tgaattgagt ttagttcgtg tgtgtcagtg tgtgacctcg tgggcgctta 360  
ataaaaaagca agcatgtgtg gtgatttttg ttgccgtctt tgtgtaagga agctactgat 420  
tgttgtagcc ttcacccaaa ctttatcaga gtcttg 456

<210> 11651  
<211> 450  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-026-Q1-E1-A1  
<400> 11651

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ttgaaagtct caagaagatg aacaagaaca agaagcttgt taagaagcta gccagaagat 120  
accatgcttt cttggcatca gaggcataa tcaagcagat cctcgtctc cttggccctg 180  
gtcttaacaa ggcaggcaag tttccactc tggtagtca ccaggaatct cttgaagcca 240  
aggtcaacga gacaaaagct acagtcaagt tccagctaaa gaaggttctt tgcattggcg 300  
ttgctgtggg caactgtcg atggacgaga agcagatcca acaaacatc caaatgagt 360  
tcaacttct tgtgtcnc ctagaagaaga attggcagaa tgtgaggtgc ctgtactga 420  
agagcaccat ggggaagcgt gtacgggtgt 450

<210> 11652  
<211> 465  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-026-Q1-E1-A12  
<400> 11652

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cgtggaccgg aggtcgtgg accggagtcc gtgtagctc ctctcggac gaggccacc 120  
tagcagtcac gtgctcgggt gaaacagctg ggggtggcgg cgaggaaggc gccgtagcag 180  
tcacctacc tctctccc cgaccagtg cccacctcc tctcttcta cctcgtcccc 240  
tgctgggcac cgcggtcgac gaggaagggc cggcggtgt ggccatactg tccagcaacg 300

ctcggcggag aggtgctgtct ggaatggaag acctcagacc acgagccgac gaagaagggg 360  
 ccttggcgcg ctcccgacca gagccacca tctttcaaca cctgccatga caaacagtaa 420  
 acgaaattag tacaacatag ataaaggacg acatgaataa taata 465

<210> 11653  
 <211> 382  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-026-Q1-E1-A6  
 <400> 11653

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 tctgatcctt tccatgggta tgaaactgaa actgttgtgg cacatcttac taagtcgaat 120  
 ggcataatcga cccttttcac tcatgatgag aagactcact attactttat tctcaaatta 180  
 tttcctttct cattaaaggg tgatgctaaa gcttgggtaca atactcttgc tcttggttgt 240  
 gcgcgtagtc ccgaggatac gatttaatac ttctctgaaa aatatttttt tgggtcaaaag 300  
 aaagtagctg ccttacaagg aatatttaac tttgtgcaaa ttaaagagga gagtctccca 360  
 caagcttggg ggaggctttg cc 382

<210> 11654  
 <211> 468  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-026-Q1-E1-A8  
 <400> 11654

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 ttcttccggc gagagcttct gcagaactgc catccccgta aaccatgagc tgtaaccagc 180  
 attgaagtag tatgtgcatt tcacgcttaa tacttcattc acacagtcaa agagcagcct 240  
 ccgaatcatt ccgaaagatt ttccctcttc ttcaccact ggcagcctaa aattgccatt 300  
 tagttcttca aacagatgtg gatccaggat atttgagcta tcaaactgct cgaagtaaga 360  
 gcaagcatta tctctgagag atatagcatt cagtatttct cgtaagaact ttagctccat 420

acgacatgag ctgctgcttt ctgatggacg tgttgtttcg gctaaagt 468

<210> 11655  
 <211> 388  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-026-Q1-E1-A9  
 <400> 11655

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 aggctgccgt gaaaaagatg tacgacatcc aggccaagaa cgttaacacc ctgatcaggc 120  
 ctgatggcaa gaaaaaggcg tacgtgaagc tgacaccaga ctatgatgct cttgacgtgg 180  
 ccaacaagat cggcatcata taagtcagag ggacggctcct gcaataagcg cttgtgtcgt 240  
 ggtttcttat gttattggag ttttgtagtt gtgacttagc aaacgggctc agtggctcca 300  
 ttgcctacca tatcgccgcg cactttcatg aatttgatgc aatcgaagtg acttgtgttg 360  
 atgctaattt gagctttgcg tttggtgc 388

<210> 11656  
 <211> 395  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-026-Q1-E1-B10  
 <400> 11656

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 ggtgtcgcac gccatcagag cgctgccaac taagtgtgtg cgaccgcaga ccagagagag 120  
 agcgagggga catgaccgtg agatgtggag agagatcatc ccatgcgtgg tcgacgcagg 180  
 tccaaagggc aacttacgga tgtctcaca agtcccatat ggcaggggca aaaaagcgag 240  
 tggatactag acagtggcat accatcacag agaatgtcag taatggccca ttgttgaagt 300  
 gcattactac caagtgagca cattgccaat agttgggggtg aaccggtcgt tccaaagaac 360  
 aggcgcacta gaggatctaa gcttacgtca gcgtg 395

<210> 11657  
 <211> 389

<212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-026-Q1-E1-B3  
 <400> 11657  
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 cgtacatacc gtgctcacgg acgcatcaat ccttacatgt ccaacccctg ccacattgag 120  
 ctgatcttgt cagagaagga agagcctgtg aagaaggagg ctgataacgt cttcgcacca 180  
 aggaaagcta tctaagctac cggaatggat gcattcgtcc aacagtctta gttgtagttc 240  
 ttctcaagta cctttgttgg cactgtatgt tgccctccctt gatgtctttg ttaccaacat 300  
 tgattaagga tttgttaacg ttgatgctat ccttgtgatt gccagtggtc tttatatgct 360  
 aaaacagttt cagatatattg agcatttagc 389

<210> 11658  
 <211> 473  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-026-Q1-E1-B5  
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 agcgcgactt cctatttgcg agcgagtgtc gttgagatgt gcgctggagg agcgggtgggg 180  
 tcctccgggt gaatgtggac tggcttcgtc gcgctgccc actggaatgc ggattctgaa 240  
 gcatgcttct tagctcgcaa aaaatcactc ggatcggcat ttttcttgta ttctctatc 300  
 tcgaatgctg ccatttgcgc atcggcaatt tttgagcctt tttgaaggca ctctctgct 360  
 ctctgcctat ttcccgtagc tgtgatcaca cctctggctc cgcccatctt caacttgaga 420  
 tacacgtaac atggtcgggc cgtgaaatga gaatatgcgg gcctgccag aat 473

<210> 11659  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-026-Q1-E1-B6



<400> 11659

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gtgcggggagg ccactgatgt gggcacaaac cagatgggcg cgcctgggtc cccaggtecc 120

ccatgatgag ttgtgcacac cactgggtcc gtcttgaata ctttcgtaga tgcacaagtc 180

atcgtecggt caaaagtgtg tgtaagctag attactatac tacttcatgc agtttcacat 240

gtatatcatt ggagtgttat gtcattcatt ttgcatcgta tgatttcttg aactatgtga 300

gaagtgtcct ctttctttcc tcatatatag tctccagctc caagcagctt tactttcaga 360

tacattcata gatgaccatc aatacaacgt catagctctt cgacattttc ttataaaaaa 420

cgttca 426

<210> 11660

<211> 284

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-B8

<400> 11660

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aacgtcttcg agcatcttgc atctggactc ctacgcagat gggcctctct aatatctgtc 120

ttctctgtta ttcaaactc ctccgatcat caggttgtca atctacgacc cagggacgtc 180

ccaatcatac ggatagatca ccaaagccac atgtctctga gactttggat aggcatctac 240

cgacatctgc attattaaga ctgccgttac ctctcatca cgat 284

<210> 11661

<211> 400

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C10

<400> 11661

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ctaccttgtg gggcgacact atttgtctca cgcatacagg gctagtttgg atcgagtcct 120

cgacattgtg cctggaggaa agtgctgcct ggagcctggg gtggtggacc ttttttgcct 180

ggccaggcaa acctgggcat gtatgtatgg ttccatccct gggtagcggt tttgccaatt 240  
 agtgactaaa gaacttttac acgatggacc atactgcaca tgactcttga aagtgccagg 300  
 caactggcca agcgaatgac acatgacgcc tgagtacgc gattatcatg agacattcat 360  
 cattgtcaaa aaggcggcgc ctcttgagga tccaggctta 400

<210> 11662  
 <211> 493  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C2

<400> 11662

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 cacatcgaca tggcggggcc ggtgtggaac gacaagaagc gtgccgccac gggattcggc 120  
 gtgtccaccc tggtaggagtg ggtgtcgaag aatcatcat cctgaatgga catccccct 180  
 gatttcatt gttctgata acaacgccag agaaggaaga taaacagagt gctgttcatt 240  
 catgattgta ccagggaata tgaatggatt ttatttgctt ttggctggcg tatggactat 300  
 ggatgggagc tatagaatta ggaacggttt catggaggaa aatagaacag aatcagaatg 360  
 tcgttgaaca catcccttgt cagattatat ggtgtttcat cgttttcatg ttgtgcctgt 420  
 gactggctcg tgtgtctaa ttatgtcgtg tccttttggc tcatgttgaa tatgctaag 480  
 caatgggtgct ttt 493

<210> 11663  
 <211> 478  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C6

<400> 11663

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 cgggtgaaaag acatcgcgcc aatggagcta cccctacggc tcctatctca actctcatta 120  
 ttctacgtct cctgttttga ccgggcgctt ctccaactac aggatgcaat cagattttat 180  
 agcaaggatg ttgggtctcc atgaagcccc tccagcgtac gagctcacag aagatcaatc 240

ttgtgactca tctggcatga cctttgcttc tgggtggcgct ggtgtcttca aggtgaagac 300  
caagaaggtg ccgacacttg ccgcacaagt tcaaactttc aagaggcttg tcaaggatgg 360  
ggtcacttca acacatcagc ttcaccactc cgtcgcgctc atcgccatct ccggcaatga 420  
ttacatgagc gactccgaca ttgagactgg cttctacaca agcttcgatg atcttgat 478

<210> 11664  
<211> 201  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C7

<400> 11664

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ctaccacacc gagcaaccga ctgcatgtct ccggaccaat gtgtttcagc agacccatca 120  
taccgcagc gattcctccc agattcaagt cgggtactgg agtcagcaag ttcaatcgct 180  
attctaacc caatgttctg g 201

<210> 11665  
<211> 250  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C9

<400> 11665

ctatagttag tcatattata tctcgcatag acgcgtcctc tggctgaaca gcagtaccgc 60  
tatgctccgg caagccaaca atggatcggc caaactacca cataagcaac cggagacgct 120  
agcttggcag atgaagggtgc atttctcaaa tgagtggatga ctgcgcgagct gtgggtcact 180  
gtaactcgcc ggcataaatc gacgtctccg ttgacggccg cctttttttt aaaatttgct 240  
gaaaatcttt 250

<210> 11666  
<211> 273  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-D10

<400> 11666  
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 tctacatcat ccagcgctgc gtcgtcatgc tcctccgctg gcacgactga tcgactccct 120  
 cgctccatgg atggatccgt ccttccattc catggatggg gtttgaagca aagatatact 180  
 ttttggtttt gggctctgtga ttgtgctgtg ccacaatggg gtcggcacgt agtacttgta 240  
 cataagaggc gagtcaaatt atagaagtag aag 273

<210> 11667  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-026-Q1-E1-D2

<400> 11667  
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 cagtttttcg tagtttagat cgagtctgtt cttcatatct acagtccacg aaaaagccac 180  
 aaaaaaatt tagggtagt tcatcatatc cgaaccaatc tgagcctttg cataatcttt 240  
 ttagggtttt tgctttgttg aatttgcggt tgcacgctcg gtctagttgc tgggtctaaa 300  
 gtctaattct ttagagtttc gagttctggg cataagttgt cacgccgcgc ccacaccatc 360  
 atcatcgccc ctgccatcta ccaccaccgc tcatccggca ccgctccgaa ttcgatatca 420  
 tataccacca ccaatccgtg tccatata 448

<210> 11668  
 <211> 459  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-026-Q1-E1-D5

<400> 11668  
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 ttgtctgcgg ctgatggagg gggccaagtt cttgtttata aaattttgtt caaaatttta 120

aaaaaaatac tgctgtgttt gcaaattgtg gtcatgaatt caaaaaaagg ttcttgttgt 180  
 ttcaaaattc cttgcttttt ggaaaaaaa atcgtaaact gcaaaaaatg tatgtgttta 240  
 taattttttt caattttttt aaaaatgttc atcttttcaa ttttgtccat aaattcaata 300  
 aatgtcagga acatttcaaa atgtacgcac atttcaaaag tgttcaaaag ttaaagaaat 360  
 ttcaagtttt ctattgtcag tcacaaatta gaaaatgttt catgatttcc aaaatattag 420  
 aattttcaat ttgtatttgc ttttttaaaa actatttgc 459

<210> 11669  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-026-Q1-E1-D7

<400> 11669  
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 gcttgacttg ctagagtgtg agaggaacgc agcttgacgc ccaatcctat tatcaagttg 180  
 ggctctggta tgcaacggat gaaacgtctg tgtcaagaac tgttgtctca gggctctgtg 240  
 ggtcagctac gtccgatagt ggtttgtgtg tcgtccattc ttcccatggg taattttttt 300  
 tcgcaccctg gtgctaaatt agaccttgat gctgcggatg aaaccgggtg tgctgaaatg 360  
 agatcagacg ttttgtttcc gataacagc 389

<210> 11670  
 <211> 453  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-026-Q1-E1-D8

<400> 11670  
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 ggaccattgt atccgacaga ggaagccagc tttacctcga ggttttggca gcagttacat 180  
 gaaacattgg gaaccacgct agaatttatt acagcttttc acccacagac agatggacag 240

agcgagagag tcaaccagat tctggaggac atgttgagag cttgtgcact agattatgga 300  
tctagttggg atgacaattt gccgtatgcg gagttttctt ataacatcag ttatcaaacc 360  
agtttgaaga tggccctttt cgaagctttg tacggaagga tgtgtagaac accgttggtta 420  
tgggacgaag ttggagaccg tcagttgttt gga 453

<210> 11671  
<211> 451  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-026-Q1-E1-E1  
<400> 11671

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gcggcatccc catcaaggcg gaacaggatt cggaaggctc ggcccagagc acagctgata 120  
tgactgcttt tgtgcaaaat cttctagttc agatgcaaac caggttccaa actatgtcag 180  
agaacatcat taaaagata gatgaaatgg gtgcaagaat cgatgaattg gagctgagca 240  
tcaatgacct caaggctgaa atgggcagcg atggtatgac ccctactaaa gtgaaggacg 300  
aagaatcaaa gccagcagac agctctgcct gatttaagca gaagtagcag aagcaagtcg 360  
tattagtctt ggttccatgt caatatcatc agccattcat cactaactta atgcatgtta 420  
tgagatgtta ttcgcactgt tatatgcatt t 451

<210> 11672  
<211> 394  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-026-Q1-E1-E11  
<400> 11672

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atcgggctcc ggaaacccaa gggaaaaaga ggctacgtgg caaatggtaa aaccaaagtt 120  
gggcattgct ggaggagttt tattcaaggc gaactgtcaa ggggttccca ttatcaccca 180  
accgcataag gaacgcaaaa tccaggaaca taacaccgat atgaccgaaa ctaaggtggc 240  
aagagtggaa caaaacacta tgaaaaaaag ccgagccttc caccctttac caagtatata 300

gatgcattat gataacaagc taatataatg atatcccata caacacccaa agccctgaaa 360  
 aaaaaaagcg gccgctctaa aggattcaac ctta 394

<210> 11673  
 <211> 407  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-026-Q1-E1-E3

<400> 11673

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 acgcaagaca gaccgagtgc accgcgtttt atagatcgtc acatccaccg gattccccca 180  
 tgactgagac tccaatcgca gaagcctaca gacagggata tgtcatgaca ttgccccaaag 240  
 ttggataatg gtagtactgt gaatgccgca ttcagcagcc cgcaccaatg tgatattcgt 300  
 gtccaatcgc ctgtccaaat aaggggagat ccctagtctc acggttccaa caatgtgcaa 360  
 aaagcaccac acctgtggga acatgtaccg ctgtaaattgc acagcaa 407

<210> 11674  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-E6

<400> 11674

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 agattgaagc atctccatgg gccataaaat agaatatatc atcgggtttt gtgttgactt 180  
 cattcctggc cttaaaaaata taggtctccc taaatcgcg tatgaggtaa gactgactgg 240  
 aaaatgcaca cttggaatgg actcaataat atgcacggac ggatattctt ggtctcaagc 300  
 aactacaca gttctacaaa actctacctt ggtgatccca tatgtcgatg aacacaacaa 360  
 tagtctgcmc tccaaacact tggagcagtg cgacgactgg attacatgtg aacacatcat 420  
 gactttc 427

<210> 11675  
 <211> 448  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-E8

<400> 11675

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 tccctaagaa ggcaactttg atcaaagcta tggaggaagc tgatgtgaag accaagtggg 180  
 aaaacagctc atggggcaag aagctgattg tccagaagaa gagggctgcg ctcaatgact 240  
 tgcacaggtt caaggatcat cttgccaaaga tcaagagggg aggagctatc aggcaggagc 300  
 tagcgaagct taagaaggag gttgctgctg cttagatcac tttggcgggc agactgttga 360  
 gcttttggtc agagttgtat ctttgcccca aaatcgtgaa atattgtgcg aatcactcat 420  
 cactgttatt ggtgtatcag atgaaaat 448

<210> 11676  
 <211> 477  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-F5

<400> 11676

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 ttgattatta tatatagtta ggagatattt aatgatatgc gtacatcgaa gagtggtaag 180  
 ggtctttggc cgggtgcttc ttctgctata tattcagctc tctcagcgag gtgcgaggtt 240  
 ccccgagtgg aactcccag aaatggttca aaacggccgc aggaggggtgc ttgtctctc 300  
 tttccgtgga cgaggacatc tctgtatcc cagtacacat gacgaacatg aggaggcggc 360  
 gatcgcaccg gcggcgagtt tctagcgtg caaactgcaa gtgagcctcc gaatccacct 420  
 tttagtttat cctcctctca tgagcagatg catggactat ggtgacgctg cttatgt 477



<210> 11677  
 <211> 457  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-026-Q1-E1-F6

<400> 11677

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gcgccaccact cgacgctcag gatgtccaag ttcttgccac tcatgtcggt taactctgtc  120
gtgctcctca tgaatgaccc tgctcacgaa ccccttgaga ccccccctcat tttgcaggag  180
cttgccactc taaaacaaac tctacaccgt ttccattctt caggagtcca ggtacctagg  240
ctgctgacta tgaaaacccg ctogtgctaa ttagtattat taaactataa ttttcttgta  300
aagtggaaaa tgctcatgcc ccttgggacgt tggccatggg attttttatg ttgtgttcct  360
cccgtccgtc catgattcga aatgtgttct gaacacttat gttagaacaa aaactgtagt  420
gttcctcacg ttctgccttg attcanaatg tgttgtg                                     457

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<210> 11678  
 <211> 455  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-F7

<400> 11678

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ctgctaacag ttatagggtg ccaattgggt tgggtgggca cagatttccc attcggttga  180
cgcccccttg gctccccctt gcagctgctg acttcattta tgatgggttg gccattctgt  240
ttgaaattca actatgcac aaagtactat ttggaacca actaagctgg ctgatctatt  300
caactatata tttattcctt gctggggatc tgaagcgta gttcaaattt tgctgttggg  360
ttgcatgatt gcagatgaat gatagcttgc aattggccaa tcagcttaag agtttttggg  420
ggcatgataa acggcatgat aaaccaccga agtac                                     455

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<210> 11679

<211> 476  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-G2

<400> 11679

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 tccaccacc ggggtgctact ccgtgggtcac caacctgaag aaaaacatct tgtacacatc 180  
 taccatcct cctcccatgg acggcgtgag atatgcatct cgcatcatca acgatcacga 240  
 ctacgactac atacatatgt ggccctggcac gtaccgcagc ttcttagaat tttctgccgt 300  
 gggaagctgt ccagcccagc cgaccgactg cacgtacgta cgggcacagc tagctgcagc 360  
 tacgacgtat actgggtatac ggacaacgca ataatgatat gaataaatat aaagtaaaca 420  
 gaagataaag ttgtcttgaa gcagagcgga acacagcagc agcatttggg cgtttt 476

<210> 11680  
 <211> 467  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-026-Q1-E1-G4

<400> 11680

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 aatgagatca atgcagctgc aaggatgagg gtggctgcaa acgagaaggc ggaggctgag 120  
 aagattgtcc agatcaagcg tgccgagggg gaagcagagg ccaagtacct gtctggcctc 180  
 ggtatcgccc gccagcgcca ggccattgtg gatggcctga gggacagcgt cctgggcttc 240  
 tcagtcaatg tgccctggcac cactgcaaag gacgtgatgg acatgggtgct gatcaccag 300  
 tactttgata ctatgaaaga ggtcggcgcg tcctccaagt cctcggcggt gttcatcccc 360  
 catggccctg gtgcggtgcg tgacatcgcc acgcagatcc gcgacggtct tcttcagggc 420  
 cagtctgcct ctgacaacta agcagtttgc ttcgccggca tgaactt 467

<210> 11681  
 <211> 246

<212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-026-Q1-E1-G8  
  
 <400> 11681  
  
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 atgagatcaa tgcagctgca aggatgaggg tggctgcaaa cgagaatgcg gaggctgaga 120  
 agattgtcca gatcaagcgt gccgaggggtg aagcagaggc caagtacctg tctggcctcg 180  
 gtatcgcccc ccagcgccag gccattgtgg atggcctgag ggacagcgtc ctgggcttct 240  
 cagtca 246

<210> 11682  
 <211> 455  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-026-Q1-E1-H1  
  
 <400> 11682  
  
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 aactggcatt ctcaactggt ggaaccccag actatattgc tccagaagtt ctgctaaaga 180  
 aaggatatgg aatggaatgc gattgggtgg ctttgggtgc aataatgtat gagatgcttg 240  
 ttgggtatcc accattttat tccgatgatc caataaccac atgcagaaaag attgtgcact 300  
 ggagaaacca tgtgaaattt ccagatgatt caaggctgtc tcctgaggca agagatctaa 360  
 tctgccggtt attatgtgat gttgaccaca ggattgggtg tgcaagggtc gatcaaataa 420  
 aggcccatcc ttgggtccgt ggagttgcat gggat 455

<210> 11683  
 <211> 275  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-026-Q1-E1-H11  
  
 <400> 11683  
  
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gtaggctga gctgaagagc acatgacgat gtgtgttggtg tctatggcgc cacagcagtt 120  
 ggggaggccc tggagctttt cgaactttgc tttgatggtc gccatctcct cagggtcagg 180  
 ccacttcaga tgactgattg cgtgatcctc caaggactcg atgaacttcc aagtgatggt 240  
 tgagattgct gagtgggttca ttccaaagcg attcc 275

<210> 11684  
 <211> 459  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-026-Q1-E1-H3  
 <400> 11684

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 aaaatcttct agttcagatg caaaccaggt tccaaactat gtcagagaac atcattacaa 180  
 agatagatga aatgggtgca agaatcgatg aattggagtt gagcataaat gacctcaagg 240  
 ctgaaatggg cagcgatggt atgacccta cttaaagtga ggacgaagaa tcaaagccag 300  
 cagacagctc tgcctgagtc aagcagaagt agcagaagca agtcgtatta gtcttgggtt 360  
 catgtcaata tcatcagcca ttcatcacta acttcatgca tgttatgaga tgttattcgc 420  
 actgttatat gcatttgaga tatgcagtac ctttcgatg 459

<210> 11685  
 <211> 451  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-026-Q1-E1-H6  
 <400> 11685

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 gatcctcgat cgatgccaca ggagctgtag ctccatcgat catgaattca tgatcgctct 180  
 ttctttcttt ctttctttca gtgcaatgca gcaacaaaaa gcacactgat ccgtccgtcg 240

atccatccaa caaatTTTTg attgcgcaa aagcctaaag gtagcaaagg ctaataagct 300  
agccgggatc gatgaaaggt atatctatcc ggcgtatgag actgttaaata atgcgccggg 360  
tcgtcttcgt ctaccgctca cccatgtgca tgtgccggag ggaggagggt gccgggtctgg 420  
atgcgagttt cttaatgccca tcggatgcaa a 451

<210> 11686  
<211> 450  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-026-Q1-E1-H7  
<400> 11686

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cctcctggcg cgccctggtg ggttgctccc tcctcgagac tccccccagg tgcaaccagg 180  
gcccatctgc ttccttttgg ccaataaaaa atcatcgtga agtttcgtgg catttggact 240  
ccgttcgata ttgatttcct gcgatgtaaa atacatggaa aaaacagcaa ctggcacttg 300  
gcactatgtc aatagggttag taccagaaat gatataaat gattataaaa catccaagat 360  
tgataataaa acagcatgga acaatcaaaa attatagata cgttggagac atatcagcat 420  
ccccaagctt aaccctact cgtcctcgag 450

<210> 11687  
<211> 313  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-026-Q1-E1-H8  
<400> 11687

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tgctaggatc acacccttag ctgaactggc caaccagga caacgacgtg ctcgagaacc 120  
tcacggtcgc gtggcatgag cagtaaaagc actcggagtg gctatgcagg ctcggggagg 180  
aacatttttt gcggctctca cacagctagt agttacatgt catttatatg gcgtttcagg 240  
tcagttggcc acttcgggtg attttatgag tatactctta ctgagtcctc caattgtctc 300

aaaagaggga tca

313

<210> 11688  
<211> 422  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-A6

<400> 11688

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gtggatcttg ttgaagacga gaacgatagc agaccagcga tgccgccacg acgatgccgg 180  
gaaacgatgg atggatgaga cagcacaggt aagcacctta ataccggtat ctgcaattct 240  
gcatcgtttt tcagaaacag aactagcaat tctttccggg caccaataga agcatatcga 300  
agtgttatag agcgtgcaat tgaaggagca tcaaaacttg ggaaacagtt gttttccaag 360  
cagctgttgg cttaagcaag gaaatggcaa gtcgtttgcc gtgtttcagg aaaaatccga 420  
gc 422

<210> 11689  
<211> 366  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-B10

<400> 11689

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catctgttat ccatgcaatg cacagagata atgctcctgc tcacgcatgc attggtatgc 180  
ataagaatgc tcctccaatc aatgaacgcy atgcgattga agtactggga aaaaagacat 240  
cacacgtaat taagccaatc tggggctaata aataataaat caggactcct ccagtccgtg 300  
gccctccggc cattttaaga tcttagtaat taaactaggg gaattcacgt gctagatttg 360  
ttgcaa 366

<210> 11690

<211> 411  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-027-Q1-E1-B6  
  
 <400> 11690  
  
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 gaaacggaaa aaccacaact caaaatctca aggacaaaag tcaaacgatg gtagtgtaat 180  
 cgggtggtggt tttgtggaag ctcaatggga ttgcgaaaat gcaatgattg gttttgggac 240  
 gcaatgcaga agtggagggt aagggtggtga actatgcacg gtgtcggaat tggaagcacg 300  
 gtccctaagt agccgaaaca ccttaggaga cgcagctcac aacacaaaca aaattggggt 360  
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<210> 11691  
 <211> 353  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-027-Q1-E1-C11  
  
 <400> 11691  
  
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 gtggctcagt tggacatgga gaacatgagt gaggaagaca aaaaccaact ttccatcctt 120  
 catatgaaaa atatccagga agagaatcca ggtatggtgg caaatcttat cttcaciaag 180  
 gaacaagatc tcggtcttga agatctgaac aagctcttca gtgagctctc tcgggtcgaa 240  
 aaagacatta gattccggct acctccattg catggtcgcg aagacaatat tgggtggcaca 300  
 tgtgtggcac aagatctgca actaccaagt gttctaccgg cggatcattt ggg 353

<210> 11692  
 <211> 440  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-027-Q1-E1-C5  
  
 <400> 11692

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 tgcgggtgat ccgcatgagg atttggcgag ttggcatgac aagattaggg aggtgattgt 120  
 tagaactaat cttggcatat gtatctgcat gtgttttttt gttttgcatg tagctagtgt 180  
 agtcatatcg tcggctgtac accggcaaga tgtacgtgtg atacgtacgt agacagcgag 240  
 ccgtcggccc aagaacgtgc atgggtgagat gctattgtcg tgcgaggcgg cggaagtgcg 300  
 agatgccgag tgccgtgtga agcagctgca caaggataag agccagcggc cagcaagagt 360  
 ccagccgagt cgattagtaa gtctgttgtg gccttgagaa gaggtccagt attagatgtg 420  
 gtcaagtttg ttagctgcat 440

<210> 11693  
 <211> 331  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-027-Q1-E1-C6  
 <400> 11693

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 cctgtcgatg tgcgagacat tggggcggat ttctacacta gcaacctcca cgagtggttc 120  
 ttttgcccc cggccgtggc tttcttacac acctgcaagg gtggcccgat aacctctcag 180  
 ctccaccacc ctgttgtgtc acatgaatat ggcaatgggc tacctatgga cagtggatcg 240  
 gattggggac acgggaatac agtggccaga tcgtccttcc tgaagctagt cacgttgtga 300  
 accgattctg aaagtgggga ttgaggggat a 331

<210> 11694  
 <211> 342  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-027-Q1-E1-C8  
 <400> 11694

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 agccaggtgg gggacacgcc aacgctgttc ctggacatca tccagacgat cgggtgcatg 120  
 gataacgacc acatacggga agagtaccag aaaggtggct gctgcgggtt tggcaaaggc 180



aacttctccg agctgttcaa gtccattgca ggattatgac aaatcccttg aaccctagca 240  
 atctgctgca gttcatgcat cataggatag aatctggaat tggaacctga tacgctgac 300  
 cactgcattc tatcatggtc tcatggagca tcaagaacgt tc 342

<210> 11695  
 <211> 317  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-027-Q1-E1-D11  
 <400> 11695

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 gatagtcggg cagggagcca gggaggatcc agctgaactc ttccctctag cttatggtag 180  
 ctttgttgat ggcacatcc gaacatcgtc cgtgttttta tgtttcggtg ctcagtgttc 240  
 ttcgtgggaa ctcacccagt gtgtattcct tccgtgttaa ctttgtcaaa tgcaaacaga 300  
 cctgagaata aattcca 317

<210> 11696  
 <211> 266  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-027-Q1-E1-D4  
 <400> 11696

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 actctcgccg gatttcttgc cggaagtgtt cttcttgtgt acaacacaag tgctttggct 180  
 cagtaaattc taaagttgtt atcgcatctg tacacatgtt tctacaaatg tgctgggtgt 240  
 gttcccggtc tcgctaaggt ggtcaa 266

<210> 11697  
 <211> 450  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-D5

<400> 11697

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acatcctccc cggaaggct gaaacaaatc tcagaaatgc gagcaccagt gtccggtctg 120  
ggacttgaac catggtgggt tgataccacc ttgctactcg ctgtagcgtg gtcgaaccac 180  
cttctctttc cccgtggttc actcgaatga accgacatgt cttagttgca gcgccggctc 240  
caaaatatat gcacggtacg aggatcatgt cgcgctgttt gagcaaggga ggcacggtgg 300  
cttggttttt ggaaattttg agccgatctt ctgggggaga ttagtgtgct ttccaaagtg 360  
ggattccaga cgatacaca atgctaagac aggggaaagg attcccctct tagcctgcaa 420  
tagtgcgctc aggggtagtg cgagcccaat 450

<210> 11698

<211> 309

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-D9

<400> 11698

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gtggagttgc cgccactga gatagcagca tcgctgcaca tgccagctca atcgcaatcg 180  
cgatacgagt gttgcacatc ccattcacta cccttggtgtggt tgttggtgcc atacgcactc 240  
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<210> 11699

<211> 327

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-E10

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ccagatccaa tctagacacc gtcattggagg gggttcaccac ttccattggg gcctctccta 120  
 tgatgcgtga gtagttcggt gtagacctac gggtccgtag ttagtagcta gatggcttcc 180  
 tctctctctt gagtatcact acaatgggtct ctgggagatc catatgatgt aagccttttt 240  
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 <223> Clone ID: LIB31-027-Q1-E1-E7  
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 cagggcctcc tggcgcgccc cgggtgggttg tctctctctc ggcaactccc ccaggtgcaa 180  
 ccacggccca tctgcttcct tttggcccat aaaaaatcat cattaagttt cgtgccactt 240  
 gtactccgtt tgctattgat ttctgcgat gtaaaaaaca tgggagatag acgaactggc 300  
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<210> 11701  
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 <213> Triticum aestivum  
 <223> Clone ID: LIB31-027-Q1-E1-E9  
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 gcatgcatgc aatgtttcgg catgtcatgt atgggccatg gatgggtcac acttacatca 180  
 tcgttgaact ttcgagtttg atggatatga gtacgcagat gagaaatgaa agatcacata 240  
 catttgata agtctttatt gattgtatgg acataaaata atagaataaa aatgtatttg 300  
 tacaattggg attgcccatt ataggaggaa aacaaggcaa acaactttac acaagtttca 360

ccttttgtaa cacacaagta ataaacatat actccctcgg tccggaaata cttgtccgag 420  
 aaat 424

<210> 11702  
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 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-F1

<400> 11702

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 gcttacaaaa cggtgcataa ggctttaccc atgttttagac atacaacaca ctcacattgg 180  
 ctcaacaaca tctaactgta ctagctctaa gaactaatta caaccctgtg tccagcagggc 240  
 acacatcaac ggctctgaca aatccagggg ttcaacaccc atgtgtgtca aatgcaagca 300  
 cagctgattg catcatgctt ataacttcat atcggcgcggt ttggacactt tattctccca 360  
 gatgaacaac atctgttgct gttcctaaaa ttcgtgtgtc aaatctgagg g 411

<210> 11703  
 <211> 344  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-F11

<400> 11703

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 aaaagtggtc gggtcgcag ttacgtgttg aggatggagt tacaactggg acaaaaatgg 180  
 gccaggccaa gttgcgtatg aacagtgcac tcacaaaaaa atcgggcttc ttacacatta 240  
 cggttagact tgccagaaaa aggttggtgc ctgtcattgg agagtttaaa agcatattca 300  
 tccgcgggggt tactctgcgc caacgacaaa gaggaatgag acag 344

<210> 11704  
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<213>       Triticum aestivum

<223>       Clone ID: LIB31-027-Q1-E1-F3

<400>       11704

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gaatggggttg aggaagacca gcctgggtgta tatattacca tccggggcttt gcctgggtggc  120
atcagagaac tccgccgtgt tcgattcagc cgagagaagt tcagcgagat gcacgctagg   180
ctatgggtggg aagagaaccg agcgaggata catgaacagt acctctgaga caggagaaga   240
agaagcacag atgagaacaa taccggggac ttcgccgttg acatgagcca gccgtccatc   300
catgttgtac atttgcagtt tgagctaaca ttactcgctc tgggcagcgt ttgtgaggtg   360
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<210>       11705

<211>       296

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-027-Q1-E1-F5

<400>       11705

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tttacagttt ttcatagttt agatcgagtc tgttcttcgt acctacagtc caggaaaaag  180
ccacacacag cagagatggc tagttcatcc tatccagacc agtctgagcc tttgcataat  240
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<210>       11706

<211>       303

<212>       DNA

<213>       Triticum aestivum

<223>       Clone ID: LIB31-027-Q1-E1-F7

<400>       11706

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tttttcgtag ttttagatcga gtctgttctt catacctata gtccacgaaa aagccataaa 180  
aattagggtt agttcatccc atccgaacca atctgagcct tgcataaacc tttctgtatt 240  
ttccttggtg aatttgcggt tgcacgtcc tgtccagttg ctggtcggaa cgtcgagtcg 300  
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<210> 11707  
<211> 341  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-027-Q1-E1-F8  
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aaactaacgc tagtttagtc ccacctcgtc gatcgaaggc gacgatgacc agtttatata 180  
cccagctccc gtcgtcagat tgaactcctc tggctacta ccccgtcgat gctgccctgt 240  
tgggcctggt ttccacggcg tgctctgaaa cgctgttgt agtcgcccgg tgggcttgat 300  
aacaatggtc ttattaagac acgctgtgga gacggacggg c 341

<210> 11708  
<211> 351  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-027-Q1-E1-G12  
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agatggaaca ctgttcacc tcaggaccac tccagccagc acctgtcca gaatgatggc 180  
cctataaggg ggaacaacat cgaagacatc gacatcgttt tatccgggga cccacatcta 240  
cgtgacgaga caacaacgat catgcctcca catcgaaaca atgtcagcga ttctgtttga 300  
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<210> 11709

<211> 370  
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 tgctcttgct caactgatgt cacttacagt tacattgccg cggcagtga aagaagaaga 180  
 agttatatcc ctgggggtcc cgaataaccg acgatgatgc catgttctctg ggtccgtgat 240  
 tcgtggtgca aacccaatcg tgaattgttg ttaccttaga tgtggtgtgt ccaaattgca 300  
 gccatgacac agatttgttg tatcttgaat gtgtgtgtaa atgctgggcg catttgctctg 360  
 gttttctgtga 370

<210> 11710  
 <211> 396  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-027-Q1-E1-G6  
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 ttctgaagga aaaaccttct gtgttactca tgctgatgtg ggtcttgaca ccaactgctgt 180  
 ccgggaagca gttgtcaaag ccatgaaccg tttcaagggt ttgccgataa tggatttcag 240  
 cacagatgag gcatcaaaca aggctgttat ttatgccggc gtacctccgg atgcacccaa 300  
 tggcttcaag gtgttggact ggcttacacc ttcaatcgca tcaactcaatg gaaaatgagg 360  
 cggcggcaag aatggtctcg cccagggcca gggaag 396

<210> 11711  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-027-Q1-E1-G8

<400> 11711

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cgaaaattat gaaactaaat caaaagatgc caaacttagc tgatacatca tttagaatag 180  
ttgtggattt aaaaatatac tatgaaattg taaaaatcaa ggattttacg acaaaaaagg 240  
taaacaaaac caaaagaaaa attgagaaaa acaaaataaa gtgagtgtag agagtagcga 300  
acaggaaata tctggaaaaa aaatgctcgc cgctaactct ttcaattatt ccccgagacc 360  
tacagagaac aagcaaaaag aggctactc tctacataga cacacacgga agacaagccc 420  
agttcag 427

<210> 11712

<211> 343

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-H3

<400> 11712

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ttccgtttat tatgacacat ttcattcattg tcatattgct ctttgcattga tcatgtagtt 180  
gacatcgtat ttgtggcgaa gccaccttca taattttcat acatgtcgtt cttgattcat 240  
tgcatatccc ggtacaccgc cggaggcatt cacatacaat catatcttgt tctaactttg 300  
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<210> 11713

<211> 325

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-A1

<400> 11713

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tccacatatg agtcgtttcc atagatatcc gaatcgggat aattgtatca atgccttctt 180  
tatgtgatat atgcgtgtta ttgagcgtgt ggactgtatg ggcgtctata tccatgatca 240  
atataacttc caacttctgc ttcgaccaag agaaaggagg gagaggagga gaaaaaagcg 300  
ggcgtcttag aggatccaag cttac 325

<210> 11714  
<211> 440  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-A11

<400> 11714

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cacagagaga gctttttata gcgaccaagt atgggctaca tatgacagtg aggatggaat 180  
gcctcgtcta tatgcaatgg tgcagaaagt tctttcaatg agacctttca gaatccgcat 240  
gagtttcttc aattccaaat ccaatattga actgtcgcca ataaactggg ttgcctctgg 300  
tttccagaaa acatgtggcg attttagggg tggaaggtag cagattacgg aaacagtcaa 360  
catattttcg cacaaagtca gctggactaa agggccccgt gggattatca gaattattcc 420  
tcagaaaggt gatacatggg 440

<210> 11715  
<211> 396  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-A3

<400> 11715

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agttctcttc cgatgcgtgg tggggagatg ggggtctatg ctgggaaggg agattgggga 180  
ctggcggtta gagctcaggc aagacaaaga acggtggcaa ggtcaggagg acgaatttgg 240  
ggatgtgagg ccagccggga tttaccggac atggggtgga gcggtgacct ccacttggat 300

ctaggagacg actagggagc aacttttttg tagtctcata cgatgggtgga tggttgcccc 360  
ggacgggagt gtacagtagc cttcgcaa at gcacca 396

<210> 11716  
<211> 199  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-028-Q1-E1-A5  
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ggttcagaaa gaacaccatc aagagtgaaa acagaaccag aacctaagac taaaaatgaa 180  
aggaacagaa gacattgaa 199

<210> 11717  
<211> 264  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-028-Q1-E1-A6  
<400> 11717

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gcaacagcag cggcgtgccg cctggctctt ctttttgtcc tggagatgtg cttattgcta 180  
gactctgaca gatgaattgc gtttctctcc gcaagtaatt tgagtccttc agcatgaaag 240  
tgatcgaggc accgacttcg gccg 264

<210> 11718  
<211> 422  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-028-Q1-E1-A7  
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tcattgggttg aagatctata caaacggaga cagccattgc cttcactgga tgctatatat 180  
ttcatccaac caactaaaga aaatgttggtt atgttcctct ctgacatgtc aggaagaagc 240  
ccgttatata agaaggcgta tgtgtttttc agttctccca tacagaaaga cttagttgct 300  
caaataaaaa gggattcaag tatattacct cgtattgggtg cacttagtga gatgaatttg 360  
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ag 422

<210> 11719  
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<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-028-Q1-E1-B1  
<400> 11719

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acattgagtg tacgtatgac atagagtgga gcatgtcag 99

<210> 11720  
<211> 429  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-028-Q1-E1-B12  
<400> 11720

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ggcccatgag caagatcatc taggaactcg agccagcagt cgccgcagga ccttggggcga 180  
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gcgagaagtt gcaggtttga ggttcagttt caggctattc cacttagtag acatgtaata 300  
ggaggatgta cgcagtcaag ttgtggtgat ggttgagccg agcgtgctga agtatttagt 360  
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agtgaaca 429

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 <213> Triticum aestivum  
  
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 <213> Triticum aestivum  
  
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<210> 11723

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 caaccaaagg aaatttatcc agatgttttt ccttgccgct catgagaaag gttactttgt 240  
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 tcacgaagcc tttagacca acatggcatc caacacagtc caaacaagtg cggagtacat 360  
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 tgacagttac acttac 436

<210> 11724  
 <211> 401  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-028-Q1-E1-D11  
 <400> 11724

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 actcctggcc ctagtgttcg tctggtagaa aatctttagg aggaccaact cccgctcctt 180  
 ctcttgctcc agatccccga ggtggtagtg gtgcatcacc cagttgggtcc tctgctggtg 240  
 tgcagcacca gaaccttttt tgctgcccgt ctgccggccg ttgaccatca tcggcaatgt 300  
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<210> 11725  
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 <213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-D12

<400> 11725

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gttcttagaa agaaagtcct tataagcata atttcaaaca atatgaagat caacattaat 180  
ccactgggtt acatatacct cgtagcagca gtttagagta gaccgggttt gagaaatgaa 240  
ccttttttgg atagttttca cttttattag ttttaggttt accttttctt ttttgtctcc 300  
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<210> 11726

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-E1

<400> 11726

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gaagatcttg tgcattcatt tgttacgtac ttcgattagt tttgatggtg aactcgtaaa 180  
gogtcaggga cacgtttctt ttcttttaca tctcaattta tccccatttg caggaggcac 240  
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<210> 11727

<211> 451

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-E11

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tggagatgat ccacggtgcc atgccgctgg ccggcatcgt gaaccatctg gcatagctgc 120  
 tggctgctcg cgcgcatcac cgccatgggt ctggagtggg cacttttgca attattagt 180  
 taggtgctta ggcaaatgct taggtgcgta cgatgtggta gatgcattgg aatggagggg 240  
 tgcctttata tgagtgcaaa ctgtgttgca ttcacatcgt gctgcctctc ttttcccagt 300  
 cctcccatta cttccccttat gcattcgcat gatgctaatt gaaggaggat gcatcattgg 360  
 tcgttcaaca tttcaggaac agctaccctc tcctcatct gcattatagc tgtattggga 420  
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<210> 11728  
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 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-028-Q1-E1-E2  
 <400> 11728

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 ttgataatct acaaagtgtt gtttcagaag aacaatcagg tagggaggaa atctcagcgg 120  
 tttcagggga ccttgaatgc ttggtagaag ctgggtcatga tggaaacgat agaggtctta 180  
 ctggtagatc aaaagatgag tttgaatcat cagggcatgt tgcacctgac aattcttcag 240  
 ctggtttatt tgatgaaaat ggtccaaacg tttcctcagt aaatcacgag tggccagtca 300  
 aggaagatga tacgcctgtt ttagaagacg agcctggaac taattctggg cctcaagaaa 360  
 aagagatagc acctctaaac aatttaagca gcgatataat ttctactacg gttgctgata 420  
 catccaataa atcaatggat aaacttgact gttcagg 457

<210> 11729  
 <211> 444  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-028-Q1-E1-F10  
 <400> 11729

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 tgttttaga agtatatata ctotttctga gattgtagca tactagcatg tgattatggg 120

atgagagaga gagtcttggg cgggtgataat tgtattaatg aggtttatgt tgcctattaa 180  
atcacccgaca acgcaagtca tatccggcca gccgagaaac acataactatt tccgtcgtga 240  
gatttttccc gtatatcatg cacgtctaaa gctgggcaga tcgaggctac aagttaaatt 300  
gctttttttt cctctttttt ctaattacca gtgcaaatac atgagtggtta gtactctttc 360  
cgtttcaaatt tgtaattcac gtattagatt ctgttgggtt tttttacttt aattgggttc 420  
accttttttt tttcactcca gaca 444

<210> 11730  
<211> 373  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-F12

<400> 11730

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tctatgggttg tagcacttcg gtgcgtctcc cccgccctcg cggctctgcat gagttttcat 120  
gaacaacggg cagcagtcac accatgacac ggatgtgaca gaataacatg ttggtcgtag 180  
caaaaagcaa tggcgggttg aacacaaaaca ctgtcggagt cgcagctcat catgaatgga 240  
aattgccagt catagcaaaa attgacgaca attgcagcag aatcatcatc gtcgccgtga 300  
atggctgtag cagaataatt caccggatgt agcaaaaatc cacgacgggt gcaacagaag 360  
aaaaatcatc acc 373

<210> 11731  
<211> 414  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-F9

<400> 11731

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agttcgagga acatgaagcg tgaagacttt tgtttgcgta gtttcatttt ctctttttga 180  
gtcataggag acaacgtact gttaaagggg gtcgaggaaa tactaaggaa aaatttccaa 240



gtgatgctca actcaaaatc gtacacctag caatcccttc gagtgaagcc attagaaatc 300  
 tcatacagtt cagtcaatctt cttcagttac agagacggag ttcttctggg ctctgaggaa 360  
 tttgtcctga ctgaggagtt acgagttcag cagtgcggat tgcttacaca gtga 414

<210> 11732  
 <211> 426  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-028-Q1-E1-G1  
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 ttagagcggc gcctccttcg tcgcttttgt tgctgcttga ggggattatc ctctgttgca 120  
 tccttcctgt cctcgccgtt gttttctttt ggtgtatcca ccatatatat atatcgtatg 180  
 atgaggtggc tgtccagcgc cccgtgggcg gtggttcctg ttcgtctcca gcattgtcgt 240  
 ccataccgtc gatgtcttcg gagtcaaagt cgagcgtgtc ggttaagtca tcgacagtgg 300  
 ctattaaaag ggtggtgggt agggaaacgaa tttcctcgtc gtccgcttcc cactcaagcc 360  
 ggacatagtt cggccaagag tctcctgaca gagagagaga cctcaatgaa tttagtagat 420  
 cgccca 426

<210> 11733  
 <211> 399  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-028-Q1-E1-G12  
 <400> 11733

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 tatcaagtgg tatcagatct ccagggttgc cggtgagatt ttacagtttt tcgtagttta 120  
 gatcgagtct gttcttcata cctatagtcc acgaaaaagc caaaaaaaaaa ttaggggttag 180  
 ttcattccat ccgaaccaat ctgagccttg cataatcttt tctgtatttg ctttggttgaa 240  
 tttgcgggtg catcgctcgt ttcagttgct ggtcttagcg tctagtcttt tagagtttcg 300  
 agttctgttc acaagttgtc acgcccgcgc cgcaccatca tcatcgccct gccatctacc 360

agtaccgctt cgaatccgta tccatagacc accacaact

399

<210> 11734

<211> 426

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-G8

<400> 11734

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ttcttcatac tgaacgtgac cttgattttg cctccaccat ggttcaggca ttgaatttga 120

ttttgtcac atctactgaa cttgccgagc tgcggtctct tcttaaacag tcattggtgg 180

atacttgtgg gaaggactta tttctatctt tatacgcttc ttggtgccac tctccaatgg 240

ctaccatcag tttgtgetta cttgctcaag catacaatca tgcgagttct gttattcagt 300

ctctgggaga agaagacata aatgtgaagt ttctggtgca gcttgataaa ttgatccgtc 360

tattagagac tccagtatct gcttacttgc gtttacagca tcatgagcct ggataacaca 420

cgtggc 426

<210> 11735

<211> 361

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-H1

<400> 11735

gggtcgacag catcacggaa actaaatcta aggattttac caactccgag aggggcctga 60

actcgtaaac ttgtgtgtac aacctcgccg tagctagggc cttgtctcct catacatacc 120

ccctactctt tctgtcagac ttagtaccat gactgcatgg tcggggcatc atgggtacat 180

atgtgtgtga gataactcaa ttatcatggt atgtgtgtat gtaggaactc agcagtgaac 240

ttgcaccggt tcatgttctt cacatttgtt atctggtcct gcataattgc ggaaaaaatg 300

aaggaagggc gtaacagaac aagcggggccg ctctaaaggg tcaaggctta cgtacgcttg 360

a 361

<210> 11736

<211> 361  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-H10

<400> 11736

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atcccttgca gttatgggtc tgaccatatt tcctccttga tcacatttac tgggtaagtt 180  
aaaattactt atcctcttca aatcatttcc cctgtccaac ctctactccg atttaccttc 240  
tggcattaca cctagtactt gatactggga agctttatac cccatcacat cattcctagc 300  
ctgatcagct atatttttat catgtcaact ttttaactgg gccacctggt ccttatgccg 360  
g 361

<210> 11737  
<211> 418  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-H12

<400> 11737

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agtccttttg gggatacaag caaggagaaa gctgctgctg cctcgagcaa cctagctaag 120  
ctgaaagacc tgtacggcga cgtaactgag aataaggatg acagtgatgc caggtggctt 180  
caccatgatt catgtgccga ggaggttatc aggttgggag gccctacgtg gagataaatt 240  
tgaaccgccg actctgtcat caaagtcatg ttactccacc gtttgatcta ccggcttctg 300  
cattggcatt agtgagagtt tagtctttgt aaacacttgt actttatggt gggtcacaa 360  
tccatgtcct tcggacgttc agtcagtcta ccagattcat caacacaacg ttatcatg 418

<210> 11738  
<211> 335  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-H5

<400> 11738

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caatcgagtc gtgtatatatt taggaactcc ttccttcccc gtccctcgtg cagtgactct 180  
actagtctct tttttccgaa ctgtggctgt agtgggtcttg tgtaacatca gattgttgtg 240  
tctctcagca cgttgtttgc caagctttcc gattaataac tatgtcacgg ttctgtattt 300  
gtggtcttcc tgctcatata attggatgga gaagc 335

<210> 11739

<211> 395

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-H9

<400> 11739

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atgaacaaca ggatgactag agatgctctc gggatcaagg ggggaacagt tggcgagtgg 120  
gtgagatgca aacaagaact cccctacaca caggacatgc caagcagcat accagtacca 180  
tcttaatctc accacgagag gttaccgtgc actcgtatac agcggagacc atgatctcca 240  
ggtgcctcag ctcagcaocg aggcgtggat cagatctttg aacttctcca tcggcgatga 300  
ctggagggca tggcatctcg atggcgaggc tgcaggattt accagcacat atgcaaataa 360  
cttgagcttt gcaacagtaa aggggtggagg tcaga 395

<210> 11740

<211> 282

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-B6

<400> 11740

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tggtttgccc cagacgagtg ttcacagtca cttcctgtga gaatatatta tggtcgggaa 120  
ttaagtcagc tacttaccgt ttatgggatg tgtcgtgaag gttggtcaca ttttggtggt 180

aatatgtact tgcataaact aaatcatgac tcatttttaa tcatcagctt tagaccatat 240  
 caatgtaggg tatatatgct acagcgatcg tgctacagga tg 282

<210> 11741  
 <211> 309  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-C4

<400> 11741

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 aatgacaaca agggatcggg ttcccttaag gatcaacgca ggttaaagtgc tgcattaact 120  
 cttgctaggt atggaatagt cgttcttgga aaccctaaag ttctaagcaa gcagcctctt 180  
 tggaatagtt tgttgacaca ttacaaggag catgattgct tggtaaaagg acctttgaac 240  
 aatttgaacc agagtatggg gcaatttcag aaaccaaaaa agatctacaa tgatcgaaaa 300  
 ctgtacctg 309

<210> 11742  
 <211> 362  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-C8

<400> 11742

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 ttaagatgca actcttattt gatcgatttc cagttaagca tcctacctag ctgtagctgc 180  
 taaaacggat cggacgacgc aattcctgct atgttctcca gtgtgtttcc agacctcttg 240  
 tgttttatgt gaacttgtgt cctccctggg gtatcctgat tgctgttgcg cccggttgta 300  
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 gc 362

<210> 11743  
 <211> 300  
 <212> DNA



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 tgcaaaatga aaattaatga tcatgaagat gaggaactta ttccacgcat gatgacctat 180  
 atatttggaa tactatatTTT cgtttagacgc tctatgcacTc tggacggaag gagtactcca 240  
 atacatgagt cgttcagagt cccttgaagt ccgaaatgga gccaacggta atcgcacggc 300  
 gcgcgccccat cataccccacc cagccacaa cggctgcgtg tgcgccttgg ccctggcagt 360  
 gggatgaagc ttaacattta tgatggatcg ctctgcgtc gc 402

<210> 11746  
 <211> 439  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-029-Q1-E1-F8  
 <400> 11746

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 tcttcttctt gctcctgta accagcactg catcacctcg tggccttaat gttttattag 180  
 tataggagta tatggcatTT ttattccagt agtaacgttt tctactgtgag gtggggcgca 240  
 gttgagcaaa ccgaccatcg gcaaatcccc accccgcca cggggcgctg gctgagttta 300  
 gaattagaag agagaaacga gggagaagag ctagctgtag cacagacgct gttgtcagat 360  
 gggactcgcg ttgatagaat aggagtacag agcactcgta cctctttttt gggggataaa 420  
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<210> 11747  
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 <213> Triticum aestivum  
 <223> Clone ID: LIB31-029-Q1-E1-G1  
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 ttacaataca acctgacttt cggcctotta gcggcccatg ctcttcatgg tccaatacaa 180

gtccgctgtc tctttcggcc tgctaaaagc cgacaatatg gttggggccat atgtacaccg 240  
aacttattaa cggcctgtta atggcccgtg aaatcaaagt ggcccatatg ttgcccgtt 300  
tgatgtcagc ctgttaacga ccccggtatg aagacggccg atcattaaat ttccggcctgg 360  
tttgtcccaa agaaaaatgg cctggtaa 388

<210> 11748  
<211> 436  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-029-Q1-E1-G3  
<400> 11748

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ggatggcctg gaacaatatt tgaagaagac cccgtgcagc gttgacgcct gcgattacct 180  
gcagactctc aagatgcgcc tccacggtat gattcacaac ttctgcatca aggcgctcaa 240  
gctgctgccc acaccatcgg gctcgttat gtgtggcttc ctcatggccg gccactgcta 300  
cggtccatg gaccctgtct ctaacatcat cgtcaactcc atttggtaca acttccttgg 360  
cggctctctc ccagcgtctg aaggcagcaa gattgagcaa tacaatgaca tacttgacct 420  
cctatctctg ctccgc 436

<210> 11749  
<211> 433  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-029-Q1-E1-G4  
<400> 11749

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ggattttcaa ggagcgcaac aaccttctg gtagtgaaac tcagcaatct caacttatgc 180  
gatttaagct tcgctgtctt actttactgg agatatatct tcagaggaat ccaggaaaaa 240  
aactggtgct ggaggtgtat gctttcttaa tgcaagcttt tgtgaaatca catagtgccg 300



atggcaatga gcagttcagg caacgtattg gtggtatatt gcagaaaagg atattcaaag 360  
 caaaagaatg tccaaaaggg tttgatgtcg aacttagtaa acttgaaagt ttgctgcana 420  
 aggctctgca tct 433

<210> 11750  
 <211> 468  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-029-Q1-E1-G7  
 <400> 11750

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 ccaactttgc caactcatgg ggagatgggg tgctagtgat ggtctctggt cttgtacaga 180  
 ccaaagagta cagcaaccaa aggaaattta tccagatgtt tttccttgcg cctcagggga 240  
 aaggttactt tgtgctcaat gattatttcc actttgttga ccaagaacaa gtgcaacctg 300  
 cacaggtgag agctcaggaa gcctttgaga ccaacatggc atccaacaca gtccaaacaa 360  
 gtgcagagta cattcatgaa gaaagtcaaa caatgcaagc tgttccagta acatctgaag 420  
 aaaatgatgc tgttgactgt tacacttact ctgaggcacc acagcaag 468

<210> 11751  
 <211> 370  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-029-Q1-E1-H5  
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 gacattttct tgagcagttt gttgaactga gaatatgttt gttgcatccc gtccggttga 300

ttaataaaga gatcatatat atctgttgta aaaaaaaaaa aaaaaaaaaa aaaaaaaaaag 360  
cggccgctct 370

<210> 11752  
<211> 421  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-H7

<400> 11752

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taatcaaccg gcggaaatcg tcgtggaatc atttttgttc tagctgattc gtgggtgttc 180  
attcatgtgt gcatagtgcg agcacaaatc cggcaactgt ggtcgtggcc agtcggaaac 240  
gaagttctat ctaacaaatc cggatgactt caggagcgc tcggtatgtt caatctcaac 300  
gtaccacggt cggcatggcc taaatttgtg gacatatacc gtctgttgct acattatcta 360  
tatatttgca tcaaattctt gttacgttat atattttcaa gtctatattt ttgtactttt 420  
c 421

<210> 11753  
<211> 418  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-H8

<400> 11753

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ctcgttgatg ctgtccacaa cttctctaac gccacacaca tcccgtcctt ctttgtctcg 180  
ttcatcggcc tcccgtggc aaccaattcc agcagaggctg tctcggccat catcttcgcc 240  
agcaggaaga agcagaggac ttgctccctt actttctcgg aggtgtacgg cgggtgtgacc 300  
atgaacaaca cactgtgcct gggcgtgttc ttagcgtca tctacttcag ggagctgacg 360  
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<210> 11754  
 <211> 454  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-032-Q1-E1-A5  
  
 <400> 11754  
  
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 aagcggagct ggaagagttg gagggagcag agttggaatc ccaactactg gagcctgttg 180  
 taactattcc tattcatagc acgcccgtcc caggcaaggc gcaaccaact cgccctgctc 240  
 cacagaaagc atcggctgag gaggatgagc ttgctgcact gcaagctgaa atggcattgt 300  
 gatcaggccc ccagtgaatg aagaggtgaa atgtacaaat gattggctgg acggtacgct 360  
 gtcgcaggcg agtcctggct acacatatat ttgcccggtg gtataatctt tgggtgggaga 420  
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<210> 11755  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-032-Q1-E1-A7  
  
 <400> 11755  
  
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 ctcacatata caaatatagc tagcgtgtca gccagacaca tagaaagata ggggcttatg 360  
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<210> 11756

<211> 453  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-B5

<400> 11756

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atgaagattc tcaaaaaagt aattatcccc ttgtacaaat ccattgtatt ataaaactaa 120  
tgtcccaaga tttgccttta ggatgattag attgcttgtt ggtatgtgcg gtgcaggaac 180  
ataaactttg gctgtagtgc acgatttaca ttttttactg gaaagtcaaa agcttctgaa 240  
acttttcgca caatattggg ataaaaattg tttattttgt cctaattttc agaatttttg 300  
gagtaccgga agcatggtag atgttcagat tactacagac tgtcatgttt aagacatatt 360  
ctgcttttga tgcattgttt tgcttgtttt gatgaaacta tcgattctat aggtgggtata 420  
agccatggaa aagttataat acagtagcta caa 453

<210> 11757  
<211> 446  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-B7

<400> 11757

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gtggtggcag gcttggcttc cggcctcggc atcttccggt ggccccggtg ccgtgtggct 120  
gaggcgatgt tgtttggcat tagctacaaa atagccatga tgttcctctt taagccctgg 180  
atgggaaatc tgttgcaagt gctcaagggg tgttaagagc atatgcttcc caaggccaac 240  
attgtgatgc atgtgttgtt agttttagaag tgttttggta tagcaacacg agctgacatg 300  
tagtttggtc tgtagttcat tgtacatgca agttgaattg tcctgaccat tttatgaaac 360  
ttaatttagc tttttattgg attgcagggg ggtatgaata tgtcgtatga tgaataattt 420  
tgaattatgg ttggtataaa tccaaa 446

<210> 11758  
<211> 465  
<212> DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB31-032-Q1-E1-B8

<400>      11758

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gtaccgatcc agaattcgcg ggtcgactgg aaggatgatct attctaagga tgcctcggg   60
caggggtactt agatcagggtc tgtgacccta ccctaggtac atgactccat cagtgagaag  120
ctctgggtttg tgagaagcat ataccctaac ctaccccaaa tgggacaaaa aatttaccac  180
agcatgttga tgccgctcaa tgatagcatg caaagtttca tgaatttttag acgagttttg  240
gatttactag aatttaaaaa ccaggcatct caatgttttg ccgacattca acggtgcctt   300
ggtgtttgaa attcattccc atttctttca tgggacctaa gcatgcaccc aaggacaaag  360
atgttgatttt tcaaccaact tctatgcact ggagcatgtg catgtagtgc aaacttgaat  420
tacgcacata aatgcacga aatctcactt aatgcataaa aatgt                               465

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<210>      11759

<211>      466

<212>      DNA

<213>      *Triticum aestivum*

<223>      Clone ID: LIB31-032-Q1-E1-C7

<400>      11759

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aggcaaatcc taaggagct ttatgcggga atgaataata ggcgtattag gaccaggaac  120
tggggctatc catgcccatt ttgcaaccaa aagcttcac acacgtataa aagtgttctg  180
gcacatgcaa gaggacgagc cgttggctcc ttcaagcaga tgtattctcc cagggtgga   240
cacatcgctg aactgagta cctagagaag cttcaggatc atgccgacaa atgagatgag  300
atgtgggatc gaactatgta tggctatgta gtgtcttaat tataaatgcg cctgagtatg  360
cttaatgacg gttgaactat atacttatgg ttacctatg cttgtgtacg cttattacct  420
atgtctgagt atgtttaatc tatgtttact tgtgtctaaa tgtggg                               466

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<210>      11760

<211>      454

<212>      DNA

<213>      *Triticum aestivum*

<223> Clone ID: LIB31-032-Q1-E1-D5

<400> 11760

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tgcttctatc aagtggatc agttttcagg ttgctcgggtg agattttaca gtttttcaca 120  
gttttagatcg catctgtcat tcatacctac agtccatgaa aaagccacaa aaaaagttag 180  
atctgttcat catttatcca agccagtccg agcctttgca attttctatt cattgcttgc 240  
atagttgaat tatcgggttc atcgtcgtgt cagttgctgg tcttagtgtc tagttccttt 300  
agagttttga gttctgttca cattagtcac gccgccgtg tatcattatg ctttcgctg 360  
tccaccatcc catccattaa ctccaccac gtgctacgca ctgttcattg tcataatcat 420  
agttgaggtc attcacatct tcgctgac caat 454

<210> 11761

<211> 443

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-032-Q1-E1-D6

<400> 11761

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cgcccgcatc ccattctagc cggacatagt tcagctaagg ttctcctgac aaggagagag 120  
accttaatga atttagcacg tccccgaagg gtgagtgtg aaagatgtcc ggggaggtga 180  
actccatgat cggcgcccag tcggactcga cgagcacgga tatgagcggc tcggagtccg 240  
tggctgtaga tgaatacagt ggtttggcga tacgactctc gtaaggggta aagtcagcat 300  
cgggtccat cgccactgag agtacggcct ccatgacggg gtccatccct tcgctctcgg 360  
atggcgcgac ttgctccgga tcgatggacg gagtatcttc ggatgcgac tcncgaatac 420  
tgtccgacag cagagtggcg tca 443

<210> 11762

<211> 448

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-032-Q1-E1-E2

<400> 11762

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tgtgatctgg ttttctgcaa aatgctagtt acagttgctt ggacccttgt ttcttgctat 120  
cgggttttaa atccaagctt atctgtttgg ccatccttac ccgtgggttg ccagctaag 180  
ccgtttgaac tatttatgta tctatattgt catgccttgg tacctcccta cctggtgtac 240  
ttgattcatc atgtttgctc cgatgtggta ttacttaggc tgctcaggta atgagcatat 300  
tagttgttgc tactaaactt tctcactccg ctgtaatgtt atatattgtc tctggaagtt 360  
taagcttatt ggtaatgttg ctgctacatt gttatgtagc atcctccaaa anaaaaaata 420  
aaaaaaaaaa aaaaaaagcg gccgctct 448

<210> 11763

<211> 469

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-E5

<400> 11763

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cagcgagcat gggcggcggc ctcgccattg atttgatata aactagcgtt agaccaactg 180  
ttagcttcgg ttttttagac ttgatgaggg agaggctagg gggaatgcca ttcgctgatt 240  
cgccccccgt cgattcttgc ctctgggtcag tgtacagttt tccgacagag tcgcagccag 300  
tgactctctc tctctggtag tctgatgatg tttgtaatct gccttgagct gcgctgcttc 360  
tctataacga tagggcgata ggccggctgc gtgactggca ggtgccgtct aatttttggg 420  
aatcgcagta agtttgtcat gtgtcaggat tgtgtgatct tggtagggg 469

<210> 11764

<211> 457

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-E8

<400> 11764

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aagtatcgcg gctgggcggt ggatgggtgtc tggaaactcc ccacgggggt cattcaggag 120

tcagaagaaa tatacacggg agccatcaga gaggtgcacg aagaaacagg ggttgacact 180

gaattcgtgg atgtgggttgc cttcaggcac gcgcacaacg tggcgtttca gaagtcggac 240

ctgtttcttca tctgcatgct gaggcctctg tcgagcgcga tcaagatcga cgaaacagag 300

attcaggcag caaagtggat gccgctggag gagttcgtga agcagccggt catccaggag 360

gaccacatgt tccagaagat catggacatc tgcattccagc ggctgaggaa gtgctactgc 420

ggcctcacgg cgcacaacgt cgtctccaag ttcgacg 457

<210> 11765

<211> 451

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-F2

<400> 11765

gggtcgacag cctagttgct tggttggcct cgagtccgaa aacaaacctt tctcttccgg 60

cgccacaaaa gccaaagctta aacgaattcg gaggaccatc ttcttttgcc tctcaagggt 120

agaagctctt cgtctcagca aaaacaaaga aaagaactcc accacatatg agttaatttg 180

catgccaaac aagctcaaag caagaaacta caagcaatgt ctagtaggcc gagactaagc 240

taaaaaagtg taatgtatgt gtcccatagc atgcacacaa cataacaaat agctctcaat 300

cagttatcta atccccctcc tagtttgctg tgtttcaaca acaaaaccca tcaaaaggat 360

cgtgatagtc acaatcaact cgatccgttc aaactgcaga gttttcttgg taaattacca 420

agagtagata agagttcttt gcgtaatcgt t 451

<210> 11766

<211> 468

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-F7

<400> 11766



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agagaaagct gctgcggcca ccaacgaagg gctcgacgct gcaggccacg ccatacgaac 120  
ggcgtggggc gtgttcaagc tccggcaggc attgaacccg aagagcgctc tgaaacccac 180  
gtcgctcgcc aagtccagca tcaaggccgg ggccgcggaa cttagggtcg agagcagcaa 240  
gagcgagtag ggtctgaagc agtcttcgcc gcagccggtc gtatcggggc tgatgagatc 300  
agaaacttgc atatgtgtag cttgtagata tgtgtgctgg aaacagagag caacctgcct 360  
gtcatgtctt tccctctgct gatgtgcttc ctagttagt atctgttgct tggttttgtt 420  
ctgtgctctg taagtcgatg aaatggagtt aggtaatcgc tgaatttt 468

<210> 11767  
<211> 469  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-032-Q1-E1-F8  
<400> 11767

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aatgagatca atgcagctgc aacgatgagg gtggctgcaa acgagaaggc ggacgctgag 120  
aagattgtcc acatcaagcg tgccgacggt gaagcatagg ccaagtacct gtctggcctc 180  
ggtatcgccc gccagcgcca ggccattgtg gatggcctga gggacagcgt cctgagcttc 240  
tcagtcaatg tgctgngac cactgcaaac gatgtgatgg acatgggtgct gatcaccacg 300  
tacttcgata ctatgagaac atattggcgc gtcctccaac tcctcggcgg tgttcatcac 360  
ccatggccct gctgcggtgc gcgacatcgc cacgcagatc cgtgacggtc ttcttcaacg 420  
ccagtctgcc gctgacaact agcagtttgc ttcaccggca tgaactttg 469

<210> 11768  
<211> 463  
<212> DNA  
<213> Triticum aestivum  
<223> unsure at all n locations  
<223> Clone ID: LIB31-032-Q1-E1-G5  
<400> 11768

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 ccgtccgcta tgcactggag cttctggagg cctgcgctga atatgcccc accattttta 120  
 acgatgttgg acaagcttct cctcaattgg tgctaccctg actctatctc gtatatctca 180  
 aacgatgttg gacaaccatc tcaactgttt gcttctagtc atggaaacta aataaatttt 240  
 atggttctca tttttcttag tagagggctc gtcctttccc acataatgac atacctcaat 300  
 agattttttg aatgctctgg cagctggaaa gtgatgttac attcaggcct ctaacatgg 360  
 cactccattg agttgtgata aattttatttc accaagttgt cgttccaatc ttcagtttgt 420  
 gacattgggt gtctgatatt tgtganaatt agaacttatg aac 463

<210> 11769  
 <211> 465  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-032-Q1-E1-H1  
 <400> 11769

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 taccatctt cggtcttcac aaacttgagg gaaccctctg gcatccttcc cttcccctgg 120  
 aaaatactta agaaaccaag tcagactact cattgttatc aacataaaca taaattgcac 180  
 aataattttt gttattgtac taaactttta ctagtgatat agcaataagt aacagtaata 240  
 gtagcagtca ctatgcagtt cgtcaatgct agaagcaaaa ccttccgcaa cgatacccca 300  
 atgatggatc gcgtgacagt cactagtcag ttcacatcat ccagaagcaa aaccttccgc 360  
 aacgatacca caatgacaga ttacggaatg cacgcttata taaacataga caatcgggca 420  
 tgtaaaggag aagtacacgc cgtgtgtgtg tgggttgtgc gcgtc 465

<210> 11770  
 <211> 455  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-032-Q1-E1-H3  
 <400> 11770

gggtcgacat gcaactgggg accctcgaca tatagtacga aacaaaaagt acattttaat 60

agacgaagaa tagaaaaacag caagaaaaaa tgacaaatgg gaataaaaga taaaatgaga 120  
atgggaagca cgagtaaaaa tgaacttgcc aaaatttaga acaacaacaa aatccaatat 180  
tttcaatgaa aacagaaaaa aaaaatctag aaccactact cctccccctg taatgcaatt 240  
ggaggagata aagaaaatcg atggaaccgc tactttcatt cacgctctct tcaattctag 300  
aatggatcta gctgtcatcc tctttgtggg tctaaaatat gaataatgat aagcataaaa 360  
aagaaaacac aagatgagag agaaaaaacc aagaacacaa catacaagta gaaaaattta 420  
tcttctagta catttcagaa attaacccaa tctca 455

<210> 11771  
<211> 454  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-032-Q1-E1-H6  
<400> 11771

attccccggg cgacatattg tataatatta tgcgtccgtt catatacata gccaccgata 60  
gcatttctcat acgagcatgc tttctcgagc catgttggta catgaacatg gacatacaca 120  
tattcttagg aacaaataag aaagataaat ggagaaggaa aacccaaagc aatgtcagag 180  
ttgacaaaac tgcaatggca ctttatatat ggctgtcgt gagtgagctg tttaggcctt 240  
gccggactcc tcgcagcccg gtggcttgaa ggcgatgaag ctgacgcaact gcacctggcg 300  
catgttgtcg aatccgatga tgcggacata cgcgtcaggg tactccttct tgacctctct 360  
cacctcgttg atcacttggt tggcgctcgt gcacccgaac ataggcagct ttcaacattg 420  
ttcagtagcg ccatcatagt acccaaagga tgcg 454

<210> 11772  
<211> 440  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-032-Q1-E1-H7  
<400> 11772

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ccctgtcac agcggagtcg aaattttctg aacttgggtc tgactcactg gatacggttg 120

agattgtgat gggcctcgag gaagagttca acatcacctg cgatgaaaca agcgcgcagg 180  
acattgcaac cgtgcaggat gcaacggacc ttatcgagaa gcttgtgaca gataagacag 240  
cgtgagcacc tcggttcatt ggacagcttt agaatgcaaa ggtgtcatct ggaaccgtgg 300  
acttctgatt ttctggtcgc atttggggcg agagaaaata atttatggac agctttgcat 360  
tcagtctatg ttgtgtgttc attaccattt gttatttctt catcctctcg agattttgtg 420  
tcgttgctta ggggttaataa 440

<210> 11773  
<211> 399  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-032-Q1-E1-H8

<400> 11773  
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ctcaagaaac gttgagtgtc atcgggtgtcc tggacgttgt ggcaagatca attcaagcac 120  
tccacttggc ctattcgggt ggggtcaatt gtgtaattcg cccagtgcag ttaccgcatg 180  
cagatcctga ggatggcacg aagggtgtcac atgccattaa tgggacaatg tctcctggag 240  
cacagcatga cactgatgag cgtgagctgt ctgactgca agctgtgatg aagtgcctct 300  
aggaccacag actggaggag gactatccgg tggaccacc tcagacgagg gtgattcaac 360  
tggagaacgc caatgcatac aaaacgaagg ctgtcgaat 399

<210> 11774  
<211> 456  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-043-Q1-E1-A1

<400> 11774  
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gogcctgacg gtccggccaa gggcctgtga tgcgtctagg gttgctctgg ccaggcaggg 180  
gatattccat ttgtcctttt ccttgcctcg agtccgtgtc ttggctatct atccttgctt 240

gttcatgttc cttgccttca accctaagca tacacaacgt tcatgtgtta ggcagcccac 300  
cattaccctt aggcataatca agtgggtagt cattgaggaa aagattcacc tcatgttgta 360  
ttgccttggc tcacgccctc gtcattgcat tgtccaatth ggcgttttcta acttggcgta 420  
gtgatgttca tgggtgcctag tttatcatac catcat 456

<210> 11775  
<211> 239  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-043-Q1-E1-A5  
<400> 11775

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aggatgtggt ggtggggcag atgccaacgt tcatggtccc aaagcacatc aataagcgcg 120  
ccctgaagaa caaggccctc tccgtctccc tcgacaagaa agccctcaag gatttcgtga 180  
ctgggttttca caagagaaaag aagaagagga gaaaggaggc gcagaagatt acgcaggag 239

<210> 11776  
<211> 405  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-043-Q1-E1-A6  
<400> 11776

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ttactttctt cccacaaccc ccaggggtgt tgaaaaaagt gagtggggaa atcgtcaggg 120  
cccggagatt tgatggggaa catcttgaat agagcgtcct tcaattcctg ttgcgtataa 180  
ggcgcgttga gctgagcatt catatcgctt gtcactttat gtggaactat ctcaataact 240  
ctatccacat cttgcattcc ctctgaagta tatatggttt tatagaaaga gtttaccatg 300  
ttttccatct catcattatc ctccgagaga ctgccatctc tgcgcatcaa agctttaage 360  
ttagtcttcc ttgggtcagg aataggcgct cgctaaccgc gcctg 405

<210> 11777  
<211> 382  
<212> DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB31-043-Q1-E1-A7

<400>      11777

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gcttcgtcat  gaagagagaa gaagtctcgc aaatctgtgt ggcggatccg tactacatgc  180
acgagtccttt cttgagtctc ggtgactttg agcgtgaaac tgctagggac tacctccaaa  240
acttcatggt  acagaataag gaccaggaag ttggcctcct gccttatcat ccaaagtaag  300
tcaattccgg  acaacccttt cgtacatttc aatcattcct tctcgctcat atggagaata  360
atttgaagtg  tcgtttcccc gc                                     382
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<210>      11778

<211>      429

<212>      DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB31-043-Q1-E1-B7

<400>      11778

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tccagaattc  ccgggtcgac aatgctggac gcaccacggg aacggggggt aggcaaggag   60
aacgttattc  catcttcaga gagccgtcgt tgtctcgtct ttctgagcag gacacaaacc  120
ttaacagatt  tcgaagacac atctaaaaac ggagccctca caccggcaag ggtcgggac  180
cactgtgttc  tcatgaccgt aaggccaccg gagacgaggc ggaaccctaa ttagggagga  240
ggcggcaggt  tataattcat acgaactgat ttgtagttgg acggctagga tgacagttgt  300
atccccagcc  aaccaaggat gaagtcctag attattgatg agtggatttt atacatactt  360
ttagagtata  ttatagtgcc aaaatccctc acatcatatc catctagcac ttagtcatgt  420
ctctaattgt                                     429
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<210>      11779

<211>      459

<212>      DNA

<213>      Triticum aestivum

<223>      Clone ID: LIB31-043-Q1-E1-C1

<400> 11779

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cggaaggcat cccctctttc gtcttcgtct atcggttaact ttacttggag ctatattttt 180

attcgccaca tgatatgtgt tttgcttgga gcgtcttgta tgatattggg ctttgatttt 240

tagtttacca caatcatcct tgatgtacac accttttttg agaaaccac atgattggaa 300

tttattagaa tactctatgt gcttcactta tatcttttga gctagatagt cttggctcta 360

gtgcttcact tatacttttt agagcacggc ggtggcttga tttttagaa attggtgatc 420

tctcatgctt cacttatata attttgggag tcccttaaa 459

<210> 11780

<211> 362

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-043-Q1-E1-C3

<400> 11780

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gaccggcaag tcgcgagttc ttacctgaa ggcgtcattc tggcaaacca agataaggat 120

aacttctctg tgccttactt tcccgagtaa gtctctctct caaccggccc gtaacatatg 180

aattctctaca ttctgatcgt ttttctttta acattccgtg ttttcagcag tgacacacgt 240

tgcacgtcga tctctcttag ccccaaatat tccatggcca cgtatttcga cctgaacat 300

cagtccaacg tagactacag aaatgtcaag aaggttcttg atgaggttct ccccggttac 360

gc 362

<210> 11781

<211> 462

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-043-Q1-E1-C5

<400> 11781

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gaggcaatgg atatcgtttc atccccaaaa gaggaacggt cccaaccgaa aaccatcttg 120  
 cttcttgtga gaagctccgg tttgtgagaa gcatataccc aaacctgccc caaatgggac 180  
 aaaatttga ccacagcatg ttgatgccgc tccataatag catgccaaagt ttcatgaatt 240  
 tcagacgagt tttggattta ctagaactta aaaaccaggc atctcaatgt tttgcccgca 300  
 atcaacggtg ccgtgggtgt tgaaattcat tcccatttct tgcattgggac ctaagcatgc 360  
 acccaaagac acagatttga ttctcaacc aatttatatg cactggagca tgtgcatgta 420  
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<210> 11782  
 <211> 447  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-043-Q1-E1-C6  
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 ccacgagggt ctgtttcctg cgagcaaacg aagaacaagc aagaaactaa gattgcaatc 180  
 tggatattgt gaatataaga tgaaagcttt attgatcaag gtagggttct gtgacgcctt 240  
 tgtctgggtc ttgaacacaa acgaagtacg caaacttgca gctatggtga acttttaatc 300  
 taaacaaaac ccaaagtcta aacggtgccc taagggtctg atatatggag gaagagaggg 360  
 ggaatttcgt ggcccttggg ggaggggtcc gaaatcaacc ctatctcctg tttccccaca 420  
 catacggact ctaaaaatag cctatac 447

<210> 11783  
 <211> 459  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-043-Q1-E1-C7  
 <400> 11783

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 atcaggacac cttcggtctt atcagactct tatggcaaaa actgggttca agagtttttg 120



aatgcacaac tagtatctct acgcggtaca aattttgtct agccagtact tcgggatgcc 180  
gctaattgcaa cactaaaatc atagaccctt ccacgaatct gtatgcgatg cattagtcac 240  
aaacggtgat gtaataaaac cgctaaaaaa gatgcaaaac gtttgcgatg gtggatccat 300  
caaacatggt tcaaatttta acaatagaaa cgggcagcca gatgaagggtg tgtgcatat 360  
gcggcatact attcactcgg attaactggt tgtgattagg caacacaaca gaaatgggtca 420  
gccagatcaa ggtgtctgcc attgaaggca tacaattca 459

<210> 11784  
<211> 468  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-D1

<400> 11784

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gagtgaactt cgaaacagat tcccagctcc tggctgatac catggacctg cataaggccg 180  
actcctctgc atactctcca gtcattgagg acaccaagtt acagctcaag ttgtgggttct 240  
cgcgtcatgt aatcgtgtct tgtaggcgtg aggcgaactc tgttgcccat gaattagcta 300  
gtttgggtcg cttgtgtgaa ataaaccact cgatgcagtg ggacgatgat gtaccagccg 360  
ctgttcgacg ttgtgtccag gctgatttgc cgggacaccg ttaagttaaa gctactcttt 420  
tcctcaaaaa gtggacacac aaattttgcc gaaaaaagaa ggagcaaa 468

<210> 11785  
<211> 416  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-D5

<400> 11785

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gagattttac agtttttcgt agtttagatc gagtctgttc ttcataccta cagtccacga 180

aaaagccaca aaaaaaatta gggttagttc atcatatccg aaccaatctg agcctttgca 240  
 taatcttttt aggggttttgc tttgttgaat ttgcggttgc atcgtcgttt ctagttgctg 300  
 gtcttagagt ctagtcgttt agagtttcga gttctgggtca taagttgtca cgccgccgcc 360  
 gcaccatcat catcagccct gccatctagc aacaccgctt atccgccacc gcttcg 416

<210> 11786  
 <211> 404  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-043-Q1-E1-D6  
 <400> 11786

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 aatcaaacat ttgaaaagat gctaaatgtg tatataaaaa aattaatcat gtattaaaaa 180  
 aaattaattt gctcttgaaa aagtgttgat caagaattta aaatatatta aatgtgcgga 240  
 gtaaaaatgt tgaccatgta ttcattaaat gttaatcatg tatttaaaaa aatgttaaac 300  
 ctgtattata aaaatgtatt agatatatac caaaaatgtg tatagaaaac agtgaaaacc 360  
 cgagaaaaaa cgaaataaga ctgatgaagg acaagaaaag aaac 404

<210> 11787  
 <211> 463  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-043-Q1-E1-D7  
 <400> 11787

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 aaatgagatt ggagtcggca tacaagtcaa gctccccag cgcggaagc tcagtgaaga 180  
 gttttgactg tgctataaat tctggccatg agcaagttct caaaaataaa acatgccatt 240  
 tcagctacag tacacctggt gcttgccagg atcttgaaag gaccccgcta cccctgatg 300  
 gcattttatg tgtactgggt gagacaaggg ggtggcattt tatgtgtaca gtttgtttga 360

attccgggga gattttggca gaaaactgcc accgtcagat ctagatctga tggctctggg 420  
 ggtgttcgcc aggattgac tgacggctct ggggggtgtt gcc 463

<210> 11788  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-043-Q1-E1-D8  
 <400> 11788

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 agaggcacc ctttatagg cctgtgggtg ggagaggaag agagaaggga tgagaatggt 180  
 gcgtgtgtaa atccggacgt gtgtgtgtat ccgttaagtt ttggaccctt aaatttttgc 240  
 acggaaacga tgcattgggc gcgtgcgtgc atttgaatca ctgcatatgg aagctctttg 300  
 actgggcgcg tgcattgac tcgtgcgtg gatcagaacg actaccgtaa tctgaaacaa 360  
 tggcctaact ctgaatcaat acgtgcaggg ccacctagct cgccgaactc gcgtcgctcg 420  
 catgcatgca cg 432

<210> 11789  
 <211> 338  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-043-Q1-E1-E3  
 <400> 11789

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 tgagcttggt ttatgtgtgg tttgctgccg agttgccgtt ggtcttctcc cagttgtgtg 120  
 cacatatggt acatgtcttt tacatcaagc tggaaaaccg tagatttgaa ctgcagttcc 180  
 tagttctagt ccagcaataa cattgtaatt ggtgggttaac agcttgagca accatttggt 240  
 ttccggtggct gttgcccttt agtatgtttt ttctgatgtg ttgaagaaga tggactaaaa 300  
 cggaataaaa gaggggccgg cctagatgat ccaagctt 338

<210> 11790

<211> 473  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-043-Q1-E1-E4  
  
 <400> 11790

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tgccatgggt tggacgtaga agtagaatat gtgaatcata gctagaaatc aactacaaac  120
tggcaaaaga agtggaatat ttagcaaaaa gcaatgctaa ttagttatatt cagatgtgcg  180
attgttgctg aacattaaga caaaagaagt agaataacta accaatcatt aaagttaaag  240
tggaatattt agcaaagtag tgaacccgtt gcgccaatg acgcatagac ccgctaaatc  300
caagtccgaa ctaaaaagaa aacccatgat ttaattagtt taattatggg caagcacata  360
tagtaacaaa ctgaacactc tttagagtaa taataataaa gaacgcttgc ctgttctgta  420
caatacgatg tacacacaca tttaaatttg gcaacacaaa gtttccaatg aaa          473
  
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<210> 11791  
 <211> 374  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-043-Q1-E1-E5  
  
 <400> 11791

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tgtaccact tagatagccg ttatccgtca actgatatgt taccaccaca tgcattggttc  120
cggatgatgct caagcagtg cggagatgga gacatcaacg tctcgatata cacacaccga  180
cctactctga agggagaaac cactttgtaa tttgtaactt gctaaccgtg catgaatgga  240
aatcatcta tttccatgaa cttgagcatc tgtaccggat cggcacttct actatataag  300
aacagggact gccttgggta agaaactaaa gcggccgctc taaaggatcc aagcctacct  360
acgcgttcaa gccca                                     374
  
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<210> 11792  
 <211> 452  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-E8

<400> 11792

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gagagagaga gagagagaga gagagagaga gagagtatgt acatgcggaa cttcacagtg 180  
gaggatcgcg gggcgccgag gctcacgctc ttcacgccc tccgggcagt ccgttcgtcg 240  
ccgccgtgcg gttggggatt tcgagggcgg atgtcctctt tttgctgct ccgcccggga 300  
cggggctaatacggacttca gagcccatat cttttttttt ttgagaaatt tcagagccca 360  
tatctaattg ggactcaatg tgcacattct tttagccaac tcattgtggg ttcatagtgg 420  
gccggtcacc gtggtctagc cagccaaga aa 452

<210> 11793

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-F3

<400> 11793

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ctcaagggat ttgccaagtt cttcaaggag tcaagcgatg aggagagagg acacgccgag 180  
aagctcatgg agtaccagaa caaacgtgga gggaggggtga ggctccagtc aatcgtcaca 240  
cccttaacag agttcgacca tcctgagaaa ggcgatgcc tgtatgcaat ggaattggct 300  
ctagctcttg aaaagctggt gaatgagaaa ctgcacaacc tgcacagtgt agctacaagg 360  
tgcaatgatc ctcagctgac cgactttgct gagagtgaat tccttcagga gcaggttgac 420  
gccatcaaga agatctctga gtatgtgt 448

<210> 11794

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-F6

<400> 11794

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tgcgacaagt gatgcactat gcgccaccta tcagtgcctg agaagttgaa agtgaccttc 180  
gaaagggtaa tccttaatta gtgatttgtg gtaaggttct gcttgctacg ggacgcgcca 240  
atgcctccct aacagcgaga cgtagggcag cctcgccctgg gctggcccaa cccgcgggag 300  
gccacatgcc acaacctctt ttcttccaat ttttacttt tttcaagttt acgttgccaa 360  
tgcttccaag taacaattgg aaaatattaa tagttcattt gaaaagttgg taaatccgtg 420  
caggaaaaat gagtcgg 437

<210> 11795

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-F7

<400> 11795

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ttttttagt ttagatcgag tctgttcttc atacctacag tccacgaaaa agtcaaaaaa 180  
ttagggtag ttcacatat ccgaaccaat ctgagccttt gcataatctt ttaggggttt 240  
tgctttgggt aatttgcggt tgcatcgctg tgtctagttg ctggtcttag cgttagtctt 300  
ttagagtttc gaggttctggt cataagttgt cagcccgcca ccgcaccatc atcatcgccc 360  
ctgtcaccta ccaccaccgc tcogaatccg tatccatata ccaccaccaa tccgtatcca 420  
tataccacca gcgattcata tccatata 448

<210> 11796

<211> 338

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-G7

<400> 11796

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 tagtttagat cgagtctgtt cttcatacct atagtccatg aaaaagccaa aaaaattagg 180  
 gttagtctgt cccatccgaa acaatctgag cctttgcaaa atcttttctg tatttgcttt 240  
 gttcaatttg cgggtgcac atcgtgtcaa gttgctggtc ttagcatcta gttctttaga 300  
 gtttcgagtt ctgttcaaag gttgtcatgt caaccctg 338

<210> 11797  
 <211> 460  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-043-Q1-E1-H5  
 <400> 11797

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 tgaaaaattg taaaggtgta tagaaaaatt gttgactatg taataaaaaa atgatgattt 180  
 tctttgatca tatatattga aatgtaacca agtatttaaa aaatgttaaa tatgtataga 240  
 aaaatattga ccacgtaaca aaaaatgatg actttctcat ctctctctct ctctctctct 300  
 ctctctctct ctgtctctgt gtgtgtgtgt gtgtgtgtgt gtttaacaaaa catatgagaa 360  
 atgtgacata tgtttagaaa aatgttgacc atgtgttcaa aaatgtgaat aatgcagtta 420  
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<210> 11798  
 <211> 429  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-043-Q1-E1-H6  
 <400> 11798

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ctcaaaaact aaacttaact tactaaattc tgcttaaaaa cctatcttat taaattctca 240  
acaggatacc aacttagctt attaaagagt tttcttaact gaacttaata aagagcgaac 300  
gtaggataaa acagatgatt ccaaaacaga gtgaatgtcg gaataaaaaa aaacgggggc 360  
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<210> 11799  
<211> 378  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-043-Q1-E1-H7  
<400> 11799

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tagtttagat cgagtctgtt cttcatacct acagtccacg aaaaagccac aaaaaaatt 180  
agggttagtt catcatatcc gaaccaatct gagcctttgc ataacttttt tagggttttt 240  
gctttgttga atttgcggtt gcacgtcgt gtcaagttgc tgggtcttaa gtctagtcgt 300  
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<210> 11800  
<211> 370  
<212> DNA  
<213> Triticum aestivum  
<223> Clone ID: LIB31-043-Q1-E1-H8  
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ggacggcgcg cgatcgcat agggttcgtc gtcattgggt tcgtcagcat cttcgccag 180  
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cccaaagttt gttctgaact tgttgtaga gacctgactt gtgagacatt gtcaactatct 360  
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<210> 11801  
<211> 332  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-044-Q1-E1-A5  
  
<400> 11801

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ctttaccttt gtaacgtatg ctaattttac aagcccgatc attctgactg tgtgtcacat 180  
gcctatgcat ctgaataaag gtttcttcat cgaatccata tccatcaactg acatcatcac 240  
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<210> 11802  
<211> 422  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-044-Q1-E1-A7  
  
<400> 11802

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gataatacag cgcgatgcgg gctgggctca ccagataaca ggtccaagag cttaacgggc 180  
accacatcga gcccaggagc gaatcggctg accctaaatt ggggccagtc aaccaaacc 240  
agcccaacag agccacgttc acacccatag aaaagaaaga aacacatgaa tctcaaagca 300  
tgatccaacg gccaaaaagt tcgactaacc acaattctaa actcaggcga ctgtcatata 360  
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ta 422

<210> 11803

<211> 394  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-044-Q1-E1-B2  
  
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 tcagaattca gaagccgagc tttggcgaac ctggggcact gcggacgtga cgagagaata 180  
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 tctggctggc tggttggaat ttcctttcat ttcagttaaa ggcaaaacaa atgaatggaa 300  
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<210> 11804  
 <211> 424  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-044-Q1-E1-B7  
  
 <400> 11804  
  
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 aagaaggatt acaatgaact gcttctgctc cttctgcgca ccctgggtcaa ggagggcgctg 180  
 cactttgaag aaatcgtgct gggatcaacc gcacgcctga ctcatgtgga ggttaaagtg 240  
 gatgacctga agaacaaggc ccaagagtgt gagatctacg acctgaggcc gttcttctcc 300  
 agctcgact tcagcgacaa cagttttgtc ctggacgaag gacgtgggat catcaggcat 360  
 ccagttgcag cataacaact caatcgacct cagctgantg accatgtgtg atgaacagct 420  
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<210> 11805  
 <211> 414  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-C6

<400> 11805

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cagggctccg cggcctcgca agggactctt cagctgctgt ttctgcaaga tcaggccgga 180  
ctgcagaacg aaagctgacg ctgtgtacag gtctgaaacc caggaggtgt tccatgggta 240  
gcgagcatgt tgtagcttaa gttaggagag atgagcaccg ttgaaacaag gctgataatg 300  
ttctatcatt ttggtacgga tgtgggtggc caaattccat tggaagttag atcaatttag 360  
gcgagtcttt gaactgcagc ctgctcctga gttctgactc tagatgtgca tcgt 414

<210> 11806

<211> 403

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-044-Q1-E1-C8

<400> 11806

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ctatcaattg ctcgagggta atttgttcac cctccgtaat acttatgcta tcttgagaga 180  
agccactagt gaaacctatg gccccgggtc cattctccat catacaagtt tccaatctat 240  
tttattttgc aatttttact ttcaatttat atcataaaaa taccaaaaat acttatctta 300  
ttattatcat ctctatcaga tctcactctt gcaagtggcc gtgaagggat tgacaacccc 360  
tttatcgcggt tggttgcgag gttcttattt gtttgtgtan ggc 403

<210> 11807

<211> 399

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-D4

<400> 11807

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 agtccttgct ctgataccaa ttgaaagtgc tagttatcga ctaggggggg gtgaataggg 120  
 gatttttatg aaagtcttca aaacatgaga gttttgtaga aaaacaatag aaataaacct 180  
 attgacatgc agcggaaggt agactacact agacaagcca tagccaagta ctcaatgaac 240  
 tgaaaacacg aagactatta gcagctaggt agtatggatc aggatggaag atagtgtgaa 300  
 gccaaactac attagtcatc acacagtgaa gtcaaacaga taatgcaagc aggcaatgac 360  
 ttcacaagga caaactgtaa gtaaagagaa gtaagaggt 399

<210> 11808  
 <211> 418  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-044-Q1-E1-E2  
 <400> 11808

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 tcaagcgtgc cgagggtgaa gcagaggcca agtacctgtc tggcctcggt atcgcccgcc 180  
 agcgccaggc cattgtggat ggctgaggg acagcgtcct gggcttctca gtcaatgtgc 240  
 ctggcaccac tgcaaaggat gtgatggaca tgggtctgat caccagtac ttcgatacta 300  
 tgaaagagat tggcgcgtcc tccaagtctt cggcggtgtt catcccccat ggccctgggtg 360  
 cgggtgcgca catcgccacg cagatccgtg acggtcttct tcaagggcaa tctgcctc 418

<210> 11809  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-044-Q1-E1-E4  
 <400> 11809

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 ggcgccgtac ataccgtgct cacggacgca tcaatcctta catgtccaac ccctgccaca 120  
 ttgagctgat cttgtcagag aaggaagagc ctgtgaagaa ggaggctgat aacgtcgtcg 180

caccaaggaa aactatctaa gctaccggaa tggatgcatt cgtccaacag tcttagttgt 240  
 agttcttctc aagtaccttt gttggcagtg tttgttgctt ccttgatgtt tttgttacca 300  
 acattgagta aggatttggt aagggtgatg ctatccttgt gattgcgagt ggtctttata 360  
 tgctaaaaca gtttcagata tttgagcatt agcacaccag aacttatttc tcagag 416

<210> 11810  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-044-Q1-E1-E5  
 <400> 11810

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 tcgtcgccgc caagacatca acaatgccgc ccaagcctcc caagaagccc aaggcccaga 120  
 agaaagagta cgacgagacg gatctggaga acttgaagaa gaagaaagag gacgagaagg 180  
 ccgtcaagga gctcaaggcc aaggctgcgc agaagggccc gctcggaggg gccggtctca 240  
 agaagagcgg caaaaagtga tctgctcggt ttccaaaact tattgtctgt acttagaaag 300  
 cctctgaaga aaaaaggccc acgaaaaact actttagata gttgattttg gtccagtgtt 360  
 tgggggtctcc ctttcgtgta tgaattgagt ttttgacgac actaagccag aaa 413

<210> 11811  
 <211> 428  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-044-Q1-E1-E6  
 <400> 11811

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 ggtgatcact gaagagggtt tacaaaccat attggataag ctgcgtgttc aacaccacta 120  
 ttgcctttac tgtggatgca agaaatgtag ggaaaggctg cgtactatag acccaaagtg 180  
 gtcggaccct tccctggacc ctgcgcaagc gggagctaca tgcaccagtt tgaatcagca 240  
 ggagcactgg caaatgaatg ccctgggcct aatgaagatg atcactgatc cactctgtca 300  
 atggtgacaa gggcactgtc cttccactg cagattatgg taaatgtgac atttgggata 360

ttcttgatta gttgactgtg tacgggtaac cttagtcctt aacacaatca ctgggtcata 420  
gccaactg 428

<210> 11812  
<211> 391  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-044-Q1-E1-E7  
  
<400> 11812

ggtccaggat tcccgggtcg acatacttcg cgaatggcag cagtattcac atctagcagc 60  
atggcagcag accagttttt tttcttttcc tgcattgtgtt tttcttttct tttttatttt 120  
cttttagtatg gatctatctc tctgatcaag caagaagaga tcggcagctc cagcgacatg 180  
acgagccgtt tccgggtttt tatgaaggga actatttggg gtcgcgcgga agcaaaacta 240  
gctaggggtt attagtgtcg ctctagttcc gcttgctatt cctttcgctt gttcgtttgt 300  
ttctttaagg attttattat caagggtgta aggctgggga tgtgcagcta gcttcagatt 360  
caagcctgcc gtctcgctcg cttgtacatt g 391

<210> 11813  
<211> 425  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-044-Q1-E1-E8  
  
<400> 11813

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ggccacccca agactgagtg aagataaggt taggcaatgt gttgactcaa gacttgaggg 120  
ggactatcct cctaaggctg ttgcaaagtt tgcagccgctc gcggcattgt gctccaata 180  
cgaagccgac ttccggccaa acatgagcat cgtcgtcaag gcgctccagc ccctgctgaa 240  
tgcgcgagca gccaccctg gggctgagca tgccggacgc taagctccac tccttgatatg 300  
atataataga taaggaaaaa tgagccatca attgttggtc ttgccgggcg cgtggcaagc 360  
ggtttttgta catttgatgatt tattcttccc aagttgtaac cctcgagatt ctagtaccag 420  
aaata 425

<210> 11814  
 <211> 110  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-044-Q1-E1-F2  
  
 <400> 11814  
  
 tacggctgcg acaatactac atacagggca ttcattttta aagcattcac aaacttgaca 60  
 aactataggg tgaatattca aaatagtcac gaatttgaaa aatacattaa 110

<210> 11815  
 <211> 416  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-044-Q1-E1-F4  
  
 <400> 11815  
  
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 ggaacaaggg gcggtgctac gacttctggc tggacttcag ctctgcatg agccgctgcc 120  
 gccagccctc cgattgcggc ctctcccgcg aggactacct cgagtgcctc caccactcca 180  
 aggagtcca gcgcaggaac aggatctaca aggaggagca acgtcagata agagctgctg 240  
 ctgcgaaggg caaggaggaa gccgaaggag ctctgctgt tgcagctcac cactagcatc 300  
 cgtttttatt tgctgcaagt gcttccatgt tcggctatga gcaaggcaat aatttcttaa 360  
 acattctacc ctccactcc atgacttggt ctaaaatcat gagttcgata aacaac 416

<210> 11816  
 <211> 432  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-044-Q1-E1-F6  
  
 <400> 11816  
  
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 ggacaccttt gcctctatca agtgggtatca gatttctagg ttgctcggtg agattttaca 120  
 gtttttcgta gtttagatcg agtctgttct tcataacctac agtccacgaa aaagccacaa 180

aaaaaaatta gggtagttc atcatatccg aaccaatctg agcctttgca taatcttttt 240  
 aggggttttg tttgttgaat ttgctgttg atcgtcgtgt ctagttgctg gtcttagagt 300  
 ctagtctttt agagtttcga gttctggta taagtgtca cgcgcgcgc gcaccatcat 360  
 catcgcccct gccatctacc accaccgctc cgaatccgta tccatatacc aacaacaatc 420  
 cgtgtccata ta 432

<210> 11817  
 <211> 427  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-044-Q1-E1-F7  
 <400> 11817

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 attaaaatct gtgagctcgc aggaacaggg cagtaacctt ttcattccct tgcatactgt 120  
 ttgaggaaag agttcttagt aaacagttga gaacttctgt atatctccat atggcattgt 180  
 agaacttaaa aggtgattta caaagaagtg atttacacc tctctctgct atctataaaa 240  
 attgtgacaa tggaagcttg catttctcca tatcaagaac gggagtatag attctaatac 300  
 cagagatttc tctcttttac agcgaggta tgttccatct gagccttgct acatactgag 360  
 attctaatac catcttcttc cttaaatac acagctcgat tctcgcctg tacataagaa 420  
 ggcaatg 427

<210> 11818  
 <211> 389  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-044-Q1-E1-G3  
 <400> 11818

cccgagtcga cggccattgg gtcattcaag gagcagttga tgtggacatt ggagccaatc 60  
 cctctgctga ggggtgggtg gatgatgagg gtgtcgatga ccaggccgtg aagggtggtg 120  
 acattgttga caccttccgt cttcaggagc aaactgcttt tgacaagaag cagtttatct 180  
 ctcacatgaa gcgctacatc aagaacctct ctgccaagct tgaaggggat gacctagatg 240



ttttcaagaa gaatgttgag tctgccacaa agtatcttct tagcaagctc aaggaccttc 300  
 agttctttgt tggcgagagc atgcatgatg atggcggcgt ggtgttcgcc tactacaagg 360  
 agggagctgc tgateccaact ttctgtac 389

<210> 11819  
 <211> 419  
 <212> DNA  
 <213> Triticum aestivum  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-044-Q1-E1-G6  
 <400> 11819

ccggtccaga attccccgggt cgacaacccc gataagagtc gcacgtatct cgttctcagg 60  
 acacaccgga taagcgaagc gtataggtac cgacataacc aaagttgcc aaggatggtc 120  
 ccgcacggtg ctctagtttg gaccaacact tagacaagca ttgtcccagg ggggctaaaa 180  
 taaagataac cctcagggtta attactccca agggaaaggt ttaagtggta tgcaaagtgt 240  
 aaaaccaatg ttgggccttg ctggaggagt ttattcaag gcgaactgtc aagggggctc 300  
 cataaatcac ccaaccgcgc aaggagcgca naatccggca acataacacc ggtatgacgg 360  
 gaactagggc ggcaagagtg gaacanaaca ccaggcataa ggccgagcct tccaccctt 419

<210> 11820  
 <211> 431  
 <212> DNA  
 <213> Triticum aestivum  
 <223> Clone ID: LIB31-044-Q1-E1-G8  
 <400> 11820

ggtccagaac tcccgggtcg acgagatgac gaagcgcacc acgaaggctg gaattgttgg 60  
 caaatatggg acacgttatg gtgccagttt gcgtaagcag atcaagaaga tggaggtgtc 120  
 tcagcactcc aagtacttct gtgagttctg cgggaagttt gctgtgaaga ggaaagcagt 180  
 tgggaatttg ggatgcaagg actgtgggaa ggtgaaggct ggcggtgctt acaccatgaa 240  
 cactgccagt gcagtactg tcaggagcac catccgtcgc ttgagggagc agactgaagc 300  
 ataagttgct accggcagtg tttgtccta aggaattatc tgttttttgc agtttagacg 360  
 atactttgga ttcagttctg ttggctgttt agtcaagggt atctttgtac ttggtgccat 420

ggatggtttt g

431

<210> 11821

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-A2

<400> 11821

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gcgggagatc aaggtgcaga agcttgctct caacatctcc gtcggggaga gcggcgatcg 120

cctcactcgc gctgccaaagg tggtggagca gctgagcggg cagtcgccag ttttctccaa 180

ggcgaggtac actgtcaggt cttttggcat tcgtcgtaat gagaagattg cctgctatgt 240

gacgatcagg ggtgagaagg caatgcggct tctcgagagt gggctgaagg tgaaggagta 300

cgagctcctg aggaggaact tcagtgcac tggttgcttt gggtttggtta ttcaggagca 360

cattgatctt ggcatgaagt atgaccatc aaccggcatc tacggcatgg acttctttgt 420

tggtctggag ccagctggat accgtgtc 448

<210> 11822

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-B3

<400> 11822

cgctgccgt caccggtgcg agaattcccg gatcgacgct gccattgcta aagccaagga 60

aagtcctatg cctgatgctt ctgagctctt tacaaatgtc tacgttaagg gtttcggcgt 120

tgagtcattt ggcgagaca gaaaggagtt gagagctaca ctcccatagg tcaccaacct 180

gaagatgaag atgagtactc ttctaacacg ttgagatata gaggagaaat aagcatcagt 240

gaacaaaccc ttgggtgttg ctggcagttt ttgttgcaaa acgaacctgt atagagatgt 300

gatgtcaggg gaattcgttc cttatttggt ttgttttctt ttttttttct tctgcaattc 360

agtttaactg ctgctggctg gcttcctatt ga 392

<210> 11823  
 <211> 437  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-047-Q1-E1-B5  
  
 <400> 11823  
  
 cgctgcaag taccggtcca gaattcccg gggccgcttt tttttttttt tttttttttt 60  
 tttttttgct tcccaaagga aacacacaga aaactctcgt ccaaacattc acttctccag 120  
 cgtaacaaag agtgggtattg ttatcttctg cacatattac atcctgcttg cggaatttgg 180  
 cacatcgtgc tcgagtacaa atttgaaaag ggagcaggag acgaaaagaa tgacatttct 240  
 atagtatata aaaagggagg agagagaaaa aaggtaaaac tatggatcca cgctattgta 300  
 cagttatgct attagggggg tggttattca caagcagtgt cacaagatgc tgccaccaa 360  
 ccataggtgc aggaagagcc aatacgccaa ggtcctagc cttgctcgcg gccgggttcat 420  
 cagaatttgg ctccctg 437

<210> 11824  
 <211> 200  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-047-Q1-E1-C1  
  
 <400> 11824  
  
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 atgtcatgct ccagacatgg acatgtgcc caagaacttc aaacgacatt cccaggttga 120  
 catcgagatt gacatcaagc gtatcccaa tacggtaact ttgattcagg acatggatga 180  
 accacatgtg aaccccaa 200

<210> 11825  
 <211> 381  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-047-Q1-E1-C2  
  
 <400> 11825  
  
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ttgggcagcg ctgggggaccg gcaaatacgcg agttcttacc tcgaacgcgt cattctggca 120  
 aaccaggata aggagaactt cctcgtgccca ttactttctc gactaagtcc tccccacaat 180  
 cggaccgtaa catatgaaat catacatttt gatcgggtatt cgtatagcat tccgtgtggg 240  
 cagcagtgcac atacgttgca gggtcacctc catacgtcca atataatcca atgttacctc 300  
 tatatactcg gaccgtcact cgagagtaca cgagacaaaag gtcaacaagg ttctgatga 360  
 agttcacccc ggctacacac a 381

<210> 11826  
 <211> 302  
 <212> DNA  
 <213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-C3

<400> 11826

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 cgggtgagatt ttacagtttt tcgtagttta gatcgagtcg gttcttcata ccaatagtcc 180  
 acgaaaaagc cacaaaaaaa aatttagggg tagttcatca tatccgaacc aatctgagcc 240  
 ttgcataatc tttttagggt tttgctttgt tgaatttgcg gttgcatcgt cgtgtcaagt 300  
 tg 302

<210> 11827  
 <211> 307  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
 <223> Clone ID: LIB31-047-Q1-E1-C4

<400> 11827

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 tcggcgttcg cgaatactta acacacttaa cgagatcttg gtatttgatc tgagtctggc 180  
 tactggctat acgcactaac catctacacg gggacattta tgggcactcg acgtcgtggg 240

atcagctgaa gccttcgtga cgtttagcgac tgagcggcgc ggcgccaggtt ggaccgcgta 300  
acgcaac 307

<210> 11828  
<211> 380  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-047-Q1-E1-D1  
  
<400> 11828

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aagccatgac gtctacacgc acatatttgg agcagagctc gcaacatata tacaacatat 120  
aagtagagag attatgggtg ctgcgtatca gtatatatag attattaccc cggaaaagaa 180  
tatagattat tctataaggt tactctatag atgaagaagt aattcatcag ctctagctaa 240  
gctgggtata gaacagcagg tggtactgaa tatccgatct atgtacatgt tgtgtaatcg 300  
agattattgt gggaatatgc taatctcctg aaaaaaaaaa aagaatggta gggaaaagaa 360  
agcggccgct ctagaggatc 380

<210> 11829  
<211> 420  
<212> DNA  
<213> Triticum aestivum  
  
<223> Clone ID: LIB31-047-Q1-E1-D3  
  
<400> 11829

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gagtgttaca agaaataggg tggctaaact gacaatgcc gtcttctactg ccgtcttgggt 120  
gatggccctg ttgatcactg catcatcttc aggagaagtt tcaacgacag aacgtgatag 180  
ggatgcctcc aaagtgacaa agggtcacac ttctctttac catcttcaga tgcagagcca 240  
cagcaggatg aggattctga cggattttct ggactacgac tacggaggag ccaactccaa 300  
acacgatcca cacaggaggc ccgggaatgg gggacattag gcactagata atagctagct 360  
ctcccaacca ttcgacagag tccggtgttt tggactgggtg tcatgtgtgt gcgtattcac 420

<210> 11830

<211> 363  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> unsure at all n locations  
 <223> Clone ID: LIB31-047-Q1-E1-D4  
  
 <400> 11830  
  
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 aacccccctt gagcattctg atatcgccca tttcttttccc tctcatgctt gcattagaac 120  
 tgctactgct ttatgtatga tcctactctg atgcatagcc tgttttggtta cctgctttca 180  
 taccttacct gcttataccta aactgcttag tatagggttg atactgatcc atcagtgacc 240  
 cccaccttgt ccaagttgcc tcgctttatg ttagatgact cgatcaacgt gatcgatgtc 300  
 caggccccga caccgcacat ccccccccc ccttagttgt aggactctgt acagttacca 360  
 tcg 363

<210> 11831  
 <211> 425  
 <212> DNA  
 <213> Triticum aestivum  
  
 <223> Clone ID: LIB31-047-Q1-E1-E1  
  
 <400> 11831  
  
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 caggcgatga atgagatcaa tgcagctgca aggatgaggg tggctgcaaa cgagaaggcg 120  
 gaggtgaga agattgtcca gatcaagcgt gccgaggggtg aagcagaggc caagtacctg 180  
 tctggcctcg gtatcgcccg ccagcgccag gccattgtgg atggcctgag ggacagcgtc 240  
 ctgggcttct cagtcaacgt gcttggcacc actgcaaagg atgtgatgga catggtgctg 300  
 atcaccagat actttgatac tatgaaagag atcggcgcat cctccaagtc ctcggcggtg 360  
 ttcaccccc atggccctgg tgcggtgcgc gacatcgcca cgcagattcg cgatggctct 420  
 cttca 425

<210> 11832  
 <211> 413  
 <212> DNA  
 <213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-047-Q1-E1-E3

<400> 11832

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aaccaagata aggataactt cctcgtgcct tactttcccg agtaagtctt cccctcaacc 180  
gccccgtaac atatgaattc ttagatttcg atgggttttc ttttaacatt ccgtgttttc 240  
tgcagtgaca cacattgcac gctcatctc ctaagcccca aatattccat ggccacgtat 300  
ttcgaccgg accgtcagtc gaacatagac tacacaaatg tcaagaagg tcttgatgat 360  
gttctccccg gctacgtcaa atctggaggc actttcaaca ggctatttcg taa 413

<210> 11833  
<211> 434  
<212> DNA  
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-E4

<400> 11833

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cgtagatgga tgtttatgtg cggcaaatac caagggtgat gcatgcgcgt gttttactta 120  
tgggtatgtg tccctatttt caagagtcac gtacagatag agattgtatg catcagatca 180  
gatcgtaatt cttatctcaa ctttttaaca tgtacgtaaa actcaaaata tagttacgac 240  
ccaaccaaag ttattccttt taccggatct atctattgaa caattaaacc tgcacatttt 300  
gtgaaactag caacaagccc ggatcttgtg gttcaacata aatcttgcg gagtaacatt 360  
taattttgat ttgagcatgg gtactggaag acaagtaaag tttcatttag ttgagattac 420  
cgtatgaaat attg 434

<210> 11834  
<211> 428  
<212> DNA  
<213> Triticum aestivum

<223> unsure at all n locations  
<223> Clone ID: LIB31-047-Q1-E1-F1

<400> 11834

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tgacgccaac tctccacct ccaactgcagc cgccgcccc gtcgaggacc tcaagagctt 180

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